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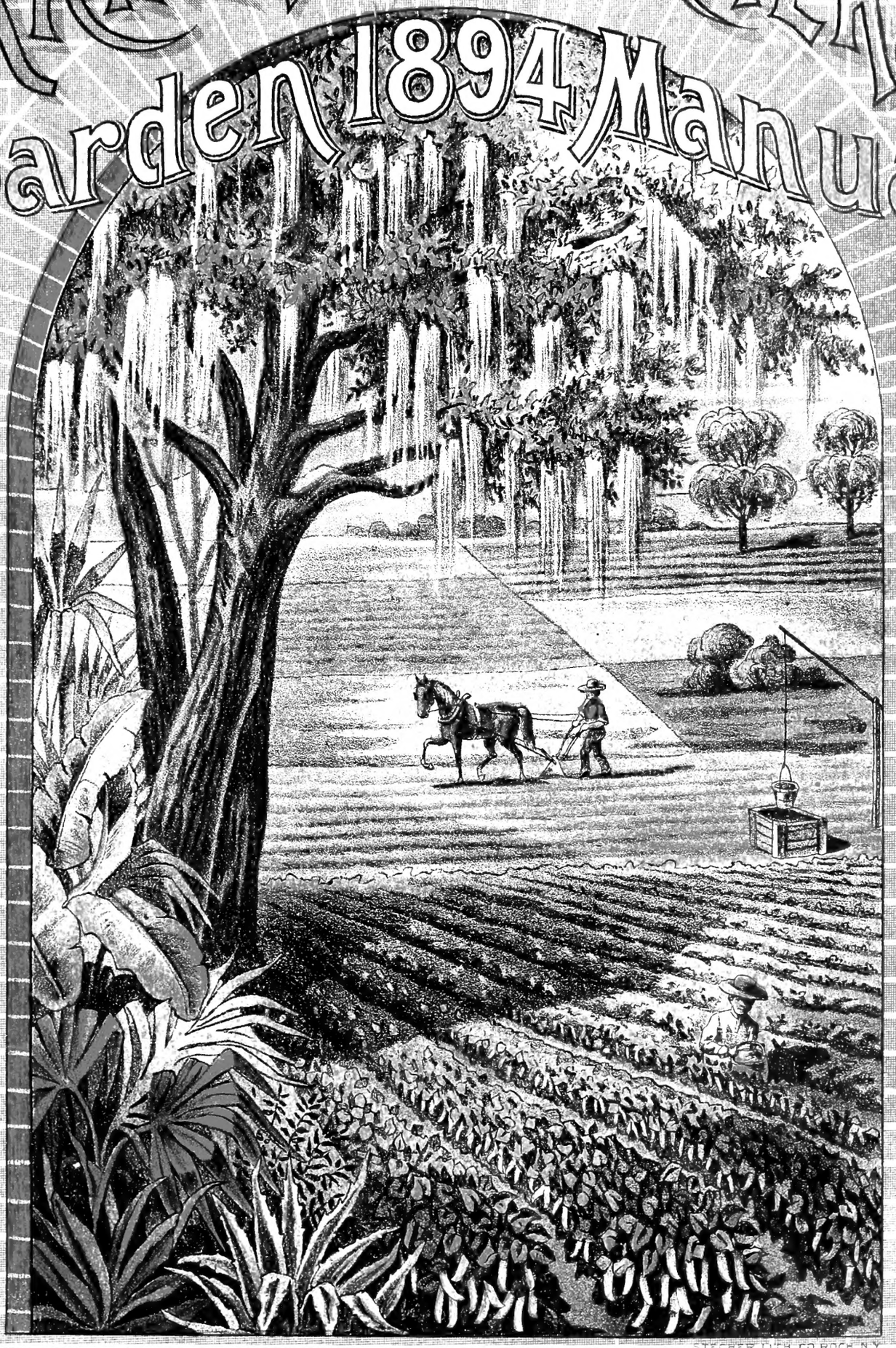
Grass seeds 80.

RICHARD FROTSCHER'S

Garden 1894 Manual



STECHER LITH. CO. ROCH. N.Y.

FOR THE

SOUTHERN STATES

NEW ORLEANS, LA.

THE WORLD'S INDUSTRIAL

— AND —

Cotton Centennial Exposition.

CERTIFICATE OF AWARD.

RICHARD FROTSCHER,

NEW ORLEANS,

For Best CABBAGE, Winter Variety,

FIRST DEGREE OF MERIT,

In accordance with Act of Congress, approved February 10th, 1883.

New Orleans, May 30th, 1885.

S. H. Buck,
Director General.

E. Richardson,
President.

Gus. A. Breaux,
Chairman Committee of Awards.

RICHARD FROTSCHER'S

ALMANAC

—AND—

GARDEN MANUAL

—FOR THE—

SOUTHERN STATES.

DESIGNED

TO GIVE DIRECTIONS FOR THE CULTIVATION OF VEGETABLES, AS PRACTICED IN THE SOUTH.

Entered according to Act of Congress by RICHARD FROTSCHER, in the Office of the Librarian at Washington, in the year 1877.

WAREHOUSE:

15 & 17 DU MAINE STREET,

NEAR THE FRENCH MARKET,

BRANCH STORE, 102 GRAVIER ST.,

NEW ORLEANS, LA.

GEO. MÜLLER, PRINTER, 50 BIENVILLE STREET,

1894.

INTRODUCTION.

IN presenting the SEVENTEENTH ANNUAL edition of my

Garden Manual

to my many friends and the public in general, I should state that I have but few new features to add. It is, as mentioned in my former editions, designed to give plain instructions how to cultivate Vegetables, Flowers and other crops in the South; more so in this particular section. The long experience which I have had as a practical gardener and seedsman enables me to do so.

My business has increased every year. It has always been my endeavor to serve my customers faithfully and to gain their confidence. It is flattering to me to have been so successful in my efforts.

The sowing of good seed is of the greatest importance, and those who favor me with their orders, can rest assured that no pains will be spared to have the very best.

Yours truly,

Richard Sutcher

SEEDS BY MAIL.

Seeds can be sent by mail to any part of the United States in packages not exceeding four pounds, at eight cts. per pound, or one cent for two ounces, or fraction thereof. On seeds ordered in papers or by the ounce I prepay the postage, except on peas, beans and corn. This refers to large sized papers which are sold at one dollar per dozen. When ordered by the pound **eight cents** per pound postage has to be added to the price of the seeds; to peas, beans and corn, **fifteen cents** per quart.

All packages are put up in the most careful manner, and every precaution is taken to insure their reaching their destination in safety. Purchasers living at any place where my seeds are not sold, are requested to write to me to obtain their supplies. This will be more profitable than to buy from country stores where seeds left on commission are often kept till all power of germination is destroyed. As seed merchants, who give their goods out on commission, rarely collect what is not sold, oftener than once every twelve months, and as Lettuce, Spinach, Parsnip, Carrots, and many other seeds will either not sprout at all or grow imperfectly if kept over a summer in the south—to buy and plant such, is but money, time and labor wasted.

Here in our climate, where we plant garden vegetables as freely in autumn as in spring, and where often the seeds have to be put in the ground when the weather is very warm, it is an indispensable necessity to have perfectly fresh seeds.

My arrangements with my growers are made so that I receive the new crop, expressly cleaned for me, as soon as it is matured. The varieties which are not raised in the North, I order from Europe, and have them shipped so as to reach me about the beginning of August, just the time they are needed for fall planting. By following this plan I have always a full supply of fresh seeds of undoubted germinating qualities, while dealers, who sell on commission, have only those from the winter previous.

On the receipt of one dollar I will mail thirteen large size papers of seeds, put up the same as seeds sold by the pound. These papers can be selected from this Catalogue, and include four papers of either Beans or Peas in the thirteen papers. Or, for the same amount, I will mail twenty smaller papers, including four papers of either Peas or Beans. This is done to enable consumers to get reliable seeds in good size papers in places where my seeds are not sold. The papers put up by Northern seedsmen are so small that of some varieties they hardly contain enough to do any good. The low prices charged to merchants are made at the expense of consumers. My papers are large and worth the full value of the money paid for them.

It cannot be too well impressed on the minds of all cultivators of vegetables, that most seeds kept through a summer in this climate *will not grow*, and that all who use such seeds will be losers.

All seeds that leave my establishment are thoroughly tested.

Having received a great many complaints that letters which were addressed to me and contained money, were not answered, I must state that these letters never reached me, and, therefore, would caution my customers not to send any money in letters without registering same. By sending one dollar, or upwards, the cost, ten cents, can be charged to me. The cheapest and surest way is money order, Postal Note or draft, but where they cannot be had, letters have to be registered, which can be done at any Post Office.

On all goods ordered C. O. D. *one fourth of the amount of bill must accompany the order;* otherwise the same will not be filled. *All bills* are payable in *New Orleans* or *New York exchange*. No individual Checks on country banks received on *amounts under Ten dollars.*

☞I receive a good many letters which are plainly enough written, except the signature. To insure prompt filling of orders, I ask all customers and others writing to me, to write their name plainly; at the same time, never fail to give the name of the nearest Post Office and Express Station. Also write out the order in columns, not in the body of the letter. Some letters came in without any signature; when the Post Office was properly given, I returned the letter to the Post Master of that place, and in some instances have traced up the writer in that way.

1st Month. JANUARY. 31 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	6d.	9h.	7m. Evening.
First Quarter	14d.	6h.	9m. Evening.
Full Moon	21d.	9h.	11m. Morning.
Last Quarter	28d.	10h.	51m. Morning.

DAY OF Month and Week.		Sun rises. h. m.	Sun sets. h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Monday,	6 56	5 12	2 15	Christian New Year. Circumcision.
2	Tuesday,	6 56	5 13	3 12	William Kinglake, British Historian, died, 1891.
3	Wednesday,	6 57	5 13	4 8	Battle of Princeton, 1777.
4	Thursday,	6 57	5 14	5 5	Introduction of Silk manuf'es into Europe, 1536.
5	Friday,	6 57	5 15	6 0	Dr. Ben Bush born, 1745.
6	Saturday,	6 57	5 15	sets	Epiphany.
1)	1st Sunday after Epiphany.			Luke 2.	Day's length, 10h. 19m.
7	**Sunday,**	6 57	5 16	5 47	Liberia colonized, 1822.
8	Monday,	6 57	5 17	6 44	Battle of N. O., 1815.
9	Tuesday,	6 57	5 18	7 41	Napoleon III died, 1873.
10	Wednesday,	6 57	5 19	8 39	First Steamboat arrived in New Orleans, 1812.
11	Thursday,	6 57	5 19	9 37	Secession of Florida, 1861.
12	Friday,	6 57	5 20	10 34	Bonaparte family exiled, 1816.
13	Saturday,	6 57	5 21	11 31	George Fox, Founder of Sect Quakers, died, 1690.
2)	2nd Sunday after Epiphany.			John 2.	Day's length, 10h. 25m.
14	**Sunday,**	6 57	5 22	morn	Edmond Holley died, 1742.
15	Monday,	6 57	5 23	0 33	Fort Fisher captured, 1865.
16	Tuesday,	6 57	5 24	1 38	Edmond Spencer, Poet, died, 1599.
17	Wednesday,	6 57	5 25	2 48	George Bancroft died, 1891.
18	Thursday,	6 56	5 25	3 59	German Empire proclaimed, 1871.
19	Friday,	6 56	5 26	5 9	Cimbria sunk, 1883.
20	Saturday,	6 56	5 27	6 15	David Garrick died, 1779.
3)	Septuagesima Sunday.			Matth. 20.	Day's length, 10h. 33m.
21	**Sunday,**	6 55	5 28	rises	Gen. Fremont born, 1813.
22	Monday,	6 55	5 29	6 52	Battle Frenchtown, 1813.
23	Tuesday,	6 55	5 30	8 2	Thanksgiving for victory of 8th, 1815.
24	Wednesday,	6 54	5 31	9 7	Miles Byrne, Irish Hero, died, 1862.
25	Thursday,	6 54	5 31	10 8	Gen. Ewell died, 1872.
26	Friday,	6 54	5 32	11 7	Louisiana seceded, 1861.
27	Saturday,	6 53	5 33	morn	Fall of Khartoum, 1885.
4)	Sexagesima Sunday.			Luke 8.	Day's length, 10h. 41m.
28	**Sunday,**	6 53	5 34	0 5	Peter the Great died, 1725.
29	Monday,	6 52	5 35	1 4	Kansas admitted, 1861.
30	Tuesday,	6 52	5 36	2 2	John M. Clayton assassinated, 1889.
31	Wednesday,	6 51	5 37	2 59	J. G. Blaine born, 1830.

Jewish Festivals and Fasts,—5654.—January 8, Rosh Chodesh Shebat; 22, Chamisho Osor.

2d Month. FEBRUARY. 28 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	5d.	3h.	45m. Evening.
First Quarter	13d.	4h.	43m. Morning.
Full Moon	19d.	8h.	16m. Evening.
Last Quarter	27d.	6h.	28m. Morning.

DAY OF Month and Week.		Sun rises. h. m.	Sun sets. h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Thursday,	6 51	5 38	3 54	Washington elected President, 1789.
2	Friday,	6 50	5 38	4 46	Feast of the Purification. Candlemas.
3	Saturday,	6 49	5 39	5 35	Russian-Turkish War ends, 1878.
5)	Quinquagesima Sunday.			Luke 18.	Day's length, 10h. 51m.
4	**Sunday,**	6 49	5 40	6 17	Conf. Congress at Montgomery, 1861.
5	Monday,	6 48	5 41	sets	Ole Bull born, 1810.
6	Tuesday,	6 47	5 42	6 34	Mardi Gras, Carnival in New Orleans.
7	Wednesday,	6 47	5 42	7 31	Ash Wednesday.
8	Thursday,	6 46	5 43	8 29	Treaty Triple Alliance, 1888.
9	Friday,	6 45	5 44	9 27	William E. Dodge died, 1883.
10	Saturday,	6 44	5 45	10 27	Canada confirmed to England, 1763.
6)	1st Sunday in Lent.			Matth. 4.	Day's length, 11h. 2m.
11	**Sunday,**	6 44	5 46	11 29	Thomas A. Edison born, 1847.
12	Monday,	6 43	5 47	morn	Abraham Lincoln, born, 1812.
13	Tuesday,	6 42	5 47	0 35	Richard Wagner, died, 1883.
14	Wednesday,	6 41	5 48	1 43	Charles II, King of England, died, 1865.
15	Thursday,	6 40	5 49	2 52	St. Louis founded, 1764.
16	Friday,	6 39	5 50	3 58	First gold found in California 1848. "Marshall's
17	Saturday,	6 38	5 51	4 58	Peace with England, 1815. [Nugget."
7)	2d Sunday in Lent.			Matth. 15.	Day's length, 11h. 14m.
18	**Sunday,**	6 37	5 51	5 49	Count Andrassy, died, 1890.
19	Monday,	6 36	5 52	rises	Sepoy Revolt began, 1857.
20	Tuesday,	6 36	5 53	6 45	Earthquake in Chili, 1835.
21	Wednesday,	6 35	5 54	7 48	Santa Anna born, 1798.
22	Thursday,	6 34	5 54	8 50	Washington born, 1732.
23	Friday,	6 33	5 55	9 51	Battle Buena Vista, 1847.
24	Saturday,	6 32	5 56	10 51	Fulton died, 1815.
8)	3d Sunday in Lent.			Luke 11.	Day's length, 11h. 25m.
25	**Sunday,**	6 31	5 56	11 50	Christopher Wren died, 1723.
26	Monday,	6 30	5 57	morn	Thos. Moore died, 1852.
27	Tuesday,	6 29	5 58	0 48	Joint High Commission, 1871.
28	Wednesday,	6 28	5 58	2 45	Biela's Comet discovered, 1826.

Jewish Festivals and Fasts,—5654.—February 6 & 7, Rosh Chodesh Adar Rishon.

3d Month. MARCH. 31 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	7d.	8h.	18m. Morning.
First Quarter	14d.	0h.	28m. Morning.
Full Moon	21d.	8h.	11m. Morning.
Last Quarter	29d.	2h.	28m. Morning.

DAY OF Month and Week.		Sun rises. h. m.	Sun sets. h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Thursday,	6 27	5 59	2 39	1st Number of the Spectator published, 1711.
2	Friday,	6 25	6 0	3 29	Washington Territory organized, 1864.
3	Saturday	6 24	6 0	4 14	A. H. Stephens died, 1883.
9)	4th Sunday in Lent.			John 6.	Day's length, 11h. 38m.
4	**Sunday.**	6 23	6 1	4 54	First U. S. Congress, 1789.
5	Monday,	6 22	6 2	5 29	Boston Massacre, 1770.
6	Tuesday,	6 21	6 3	6 0	Artemus Ward died, 1867.
7	Wednesday,	6 20	6 3	sets	Florida admitted, 1845.
8	Thursday,	6 18	6 4	7 20	Capt. Ericsson died, 1889.
9	Friday,	6 17	6 5	8 20	Battle Hampton Roads, 1862.
10	Saturday,	6 16	6 5	9 23	McCloskey, first cardinal in U. S., 1875.
10)	5th Sunday in Lent.			John 8.	Day's length, 11h. 51m.
11	**Sunday,**	6 15	6 6	10 29	Chas. Sumner died, 1873.
12	Monday,	6 14	6 6	11 36	F. W. Dawson assassinated, 1889.
13	Tuesday,	6 13	6 7	morn	La Fontaine died, 1695.
14	Wednesday,	6 11	6 8	0 44	Andrew Jackson born, 1767.
15	Thursday,	6 10	6 8	1 50	Samoan disaster, 1889.
16	Friday,	6 8	6 9	2 50	French Prince Imperial born, 1856.
17	Saturday,	6 9	6 10	3 42	St. Patrick's Day.
11)	Palm Sunday.			Matth. 21.	Day's length, 12h. 3m.
18	**Sunday,**	6 7	6 10	4 27	Stamp Act repealed, 1766.
19	Monday,	6 6	6 11	5 4	Spring begins. St. Joseph's day.
20	Tuesday,	6 4	6 11	5 36	Vesta discovered, 1807.
21	Wednesday,	6 3	6 12	rises	Southey, poet, died, 1843.
22	Thursday,	6 2	6 13	7 35	Goethe died, 1832.
23	Friday,	6 0	6 13	8 34	Chief Justice Waite died, 1888.
24	Saturday,	5 59	6 14	9 36	Herculaneum discovered, 1737.
12)	Easter Sunday.			Mark. 16.	Day's length, 12h. 6m.
25	**Sunday,**	5 58	6 14	10 36	Easter Sunday. Annunciation. Treaty of Vienna.
26	Monday,	5 56	6 15	11 35	Beethoven died, 1827.
27	Tuesday,	5 55	6 16	morn	John Bright died, 1889.
28	Wednesday,	5 54	6 16	0 31	Ex-Governor John McEnery died, 1891.
29	Thursday,	5 53	6 17	1 22	Vera Cruz taken, 1847.
30	Friday,	5 52	6 17	2 9	Earl Granville, liberal Leader, died, 1891.
31	Saturday,	5 51	6 18	2 51	Calhoun died, 1850.

Jewish Festivals and Fasts.—5654.—March 3, Parshot Shekolim, 8 & 9, Rosh Chodesh Adar Shenie, 21, Zom Ester; 22, Purim.

4th Month. APRIL. 30 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	5d.	10h.	0m. Evening.
First Quarter	12d.	6h.	32m. Evening.
Full Moon	19d.	9h.	1m. Evening.
Last Quarter	27d.	9h.	20m. Evening.

DAY OF Month and Week		Sun rises. h. m.	Sun sets. h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
13)	1st Sunday after Easter.			John 20.	Day's length, 12h. 29m.
1	**Sunday,**	5 50	6 19	3 26	All Fool's Day.
2	Monday,	5 48	6 19	4 0	Bismark born, 1815.
3	Tuesday,	5 47	6 20	4 29	Washington Irving born, 1783.
4	Wednesday,	5 46	6 20	4 57	Peter Cooper died, 1883.
5	Thursday,	5 45	6 21	5 27	Napoleon I abdicated, 1814.
6	Friday,	5 44	6 22	sets	Frost and ice in Louisiana and Mississippi, 1891.
7	Saturday,	5 43	6 22	8 17	P. T. Barnum, showman, died, 1891.
14)	2d Sunday after Easter.			John 10.	Day's length, 12h. 42m.
8	**Sunday,**	5 41	6 23	9 26	Louisiana admitted to the Union, 1812.
9	Monday,	5 40	6 23	10 36	Gen. Lee surrendered, 1865.
10	Tuesday,	5 39	6 24	11 43	U. S. Bank incorporated, 1816.
11	Wednesday,	5 38	6 25	morn	Gen. Canby killed, 1873.
12	Thursday,	5 37	6 25	0 45	First Gun of Civil War fired at Fort Sumter, 1861.
13	Friday,	5 36	6 26	1 39	Samuel J. Randall died, 1890.
14	Saturday,	5 35	6 26	2 25	National Cricket League of U. S. organized, 1891.
15)	3d Sunday after Easter.			John 16.	Day's length, 12h. 54m.
15	**Sunday,**	5 33	6 27	3 6	Mathew Arnold died, 1888.
16	Monday,	5 32	6 28	3 40	American Asylum for Deaf and Dumb opened, 1817.
17	Tuesday,	5 31	6 28	4 9	Hudson landed at Manhattan Island, 1609.
18	Wednesday,	5 30	6 29	4 38	Liebig died, 1873.
19	Thursday,	5 29	6 29	5 7	Battle of Lexington, 1775.
20	Friday,	5 28	6 30	rises	West Virginia admitted, 1863.
21	Saturday,	5 27	6 31	8 22	Battle of San Jacinto, 1836.
16)	4th Sunday after Easter.			John. 16.	Day's length, 13h. 5m.
22	**Sunday,**	5 26	6 31	9 23	Thomas Haynes Bayly died, 1839.
23	Monday,	5 25	6 32	10 19	St. George's Day.
24	Tuesday,	5 24	6 33	11 13	Capture of Forts Jackson and St. Philip, 1862.
25	Wednesday,	5 23	6 33	morn	St. Mark's Day.
26	Thursday,	5 22	6 34	0 3	David Hume born, 1711.
27	Friday,	5 21	6 34	0 46	Emile de Girardin died, 1881.
28	Saturday,	5 20	6 35	1 24	Mutiny of the ship Bounty, 1789.
17)	5th Sunday after Easter.			John 16.	Day's length, 13h. 17m.
29	**Sunday,**	5 19	6 36	1 58	King Edward IV of England born, 1441.
30	Monday,	5 18	6 36	2 28	Washington inaugurated, 1789.

Jewish Festivals and Fasts.—5654.—April 7. Rosh Chodesh Nisan; 21 & 22, First days Pessach; 27 & 28, Last days Pessach.

5th Month. MAY. 31 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	5d.	8h.	42m. Morning.
First Quarter	12d.	0h.	21m. Evening.
Full Moon	19d.	10h.	43m. Morning.
Last Quarter	27d.	2h.	4m. Evening.

DAY OF Month and Week.		Sun rises h. m.	Sun sets h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Tuesday,	5 17	6 37	2 56	Ancient "Day of Games" in England.
2	Wednesday,	5 17	6 38	3 25	Battle of Chancellorville, 1863.
3	Thursday,	5 16	6 38	3 55	Ascension Day.
4	Friday,	5 15	6 39	4 26	Dynamite riots in Chicago, 1886.
5	Saturday,	5 14	6 39	sets	Napoleon I died, 1821.
18)	6th Sunday after Easter.			John 15.	Day's length, 13h. 27m.
6	**Sunday,**	5 13	6 40	8 18	Battle of Oswego, 1814.
7	Monday,	5 12	6 41	9 31	Alexander von Humbolt died, 1859.
8	Tuesday,	5 11	6 41	10 37	Stonewall Jackson died, 1863.
9	Wednesday,	5 11	6 42	11 35	Battle of Spottsylvania, 1864.
10	Thursday,	5 10	6 43	morn	Pacific Railroad completed, 1869.
11	Friday,	5 9	6 43	0 25	Madame Ricamire died, 1849.
12	Saturday,	5 8	6 44	1 6	Charleston surrendered to the British, 1780.
19)	Whit Sunday.			John 14.	Day's length, 13h. 37m.
13	**Sunday,**	5 8	6 45	1 40	Pentecost.
14	Monday,	5 7	6 45	2 10	Discovery of Vaccination, 1796.
15	Tuesday,	5 6	6 46	2 41	East India Company dissolved, 1873.
16	Wednesday,	5 6	6 47	3 9	Sir William Petty born, 1623.
17	Thursday,	5 5	6 47	3 39	Talleyrand died, 1838.
18	Friday,	5 5	6 48	4 10	Session Grand Lodge K. of P. at Shreveport, 1891.
19	Saturday,	5 4	6 48	rises	Hawthorn died, 1864.
20)	Trinity Sunday.			John 8.	Day's length, 13h. 45m.
20	**Sunday,**	5 4	6 49	8 10	Columbus died, 1506.
21	Monday,	5 3	6 50	9 6	Maria Edgworth died, 1849.
22	Tuesday,	5 3	6 50	9 57	Title of Baronet first conferred, 1611.
23	Wednesday,	5 2	6 51	10 41	Kit Carson died, 1848.
24	Thursday,	5 2	6 52	11 22	Feast of Corpus Christi.
25	Friday,	5 1	6 52	11 56	Battle of Winchester, 1864.
26	Saturday,	5 1	6 53	morn	Hayden died, 1809.
21)	1st Sunday after Trinity.			Luke 16.	Day's length, 13h. 52m.
27	**Sunday,**	5 1	6 53	0 27	Habeas Corpus enacted, 1679.
28	Monday,	5 0	6 54	0 58	Paris burned, 1871.
29	Tuesday,	5 0	6 54	1 23	Gen. Winf. Scott, died, 1866.
30	Wednesday,	5 0	6 55	1 52	Alexander Pope died, 1744.
31	Thursday,	5 0	6 55	2 21	Inundation of Johnstown, 1889.

Jewish Festivals and Fasts.—5654.—May 6 & 7, Rosh Chodesh Iyar; 24 Lag Beomer.

6th Month. JUNE. 30 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	3d.	4h.	56m. Evening.
First Quarter	10d.	7h.	14m. Morning.
Full Moon	18d.	1h.	6m. Morning.
Last Quarter	26d.	4h.	2m. Morning.

DAY OF Month and Week.		Sun rises h. m.	Sun sets h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Friday,	4 59	6 56	2 54	Battle of Seven Pines 1862.
2	Saturday,	4 59	6 56	3 34	Session United Conf. Vet's, Jackson, Miss., 1891.
22)	2d Sunday after Trinity.			Luke 14.	Day's length, 13h. 58m.
3	**Sunday,**	4 59	6 57	4 21	Fort Erie captured, 1814.
4	Monday,	4 59	6 57	sets	Telegraph to China finished, 1871.
5	Tuesday,	4 58	6 58	9 24	Von Weber died, 1826.
6	Wednesday,	4 58	6 58	10 18	Surrender of Memphis, Tenn., 1862.
7	Thursday,	4 58	6 59	11 3	Fishery Treaty with Great Britain, 1854.
8	Friday,	4 58	6 59	11 40	Andrew Jackson died, 1845.
9	Saturday,	4 58	7 0	morn	Charles Dickens died, 1870.
23)	3d Sunday after Trinity.			Luke 15.	Day's length, 14h. 2m.
10	**Sunday,**	4 58	7 0	0 13	Battle of Big Bethel, 1861.
11	Monday,	4 58	7 1	0 42	Sir John Franklin died, 1847.
12	Tuesday,	4 58	7 1	1 12	Northern boundary treaty, 1846.
13	Wednesday,	4 58	7 1	1 40	Fugt. Slave law repealed, 1864.
14	Thursday,	4 58	7 2	2 12	Stars and Stripes adopted, 1777.
15	Friday,	4 58	7 2	2 46	Washington elected Com. in Chief, 1775.
16	Saturday,	4 58	7 2	3 24	Great Eclipse, 1806.
24)	4th Sunday after Trinity.			Luke 6.	Day's length, 14h. 5m.
17	**Sunday,**	4 58	7 3	4 6	Battle Bunker Hill, 1775.
18	Monday,	4 58	7 3	rises	British evacuated Philadelphia, 1778.
19	Tuesday,	4 59	7 3	8 38	Maximilian shot, 1867.
20	Wednesday,	4 58	7 3	9 20	Maryland Colony chartered, 1632.
21	Thursday,	4 57	7 4	9 55	Battle of Vittoria, 1813.
22	Friday,	4 58	7 4	10 29	The Greely party found, 1884.
23	Saturday,	4 59	7 4	10 58	Battle of Springfield, 1780.
25)	5th Sunday after Trinity.			Luke 5.	Day's length, 14h. 4m.
24	**Sunday.**	5 0	7 4	11 25	Midsummer. Printing discovered, 1440.
25	Monday,	5 0	7 4	11 52	First Methodist Conference, 1744.
26	Tuesday,	5 0	7 4	morn	Simon Cameron died, 1889.
27	Wednesday,	5 1	7 5	0 20	Hiram Powers died, 1873.
28	Thursday,	5 1	7 5	0 51	The Triple Alliance, Italy, Germany and Austria re-
29	Friday,	5 1	7 5	1 25	Siege Rouen began, 1418. [newed for 6 years 1891.
30	Saturday,	5 2	7 5	2 8	Herr Cahensley's Memorial, 1891.

Jewish Festivals and Fasts.—5654.—June 5, Rosh Chodesh Sivan; 10 & 11, Shebuoth.

7th Month. JULY. 31 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	2d.	11h.	45m. Evening.
First Quarter	9d.	4h.	15m. Evening.
Full Moon	17d.	4h.	3m. Evening.
Last Quarter	25d.	3h.	7m. Evening.

DAY OF Month and Week.	Sun rises h. m.	Sun sets h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
26) 6th Sunday after Trinity.				Matth. 5. Day's length, 14h. 3m.
1 **Sunday,**	5 2	7 5	2 58	Railway to top of Pike's Peak opened, 1891.
2 Monday,	5 2	7 5	3 59	President Garfield shot, 1881.
3 Tuesday,	5 3	7 5	sets	Battle Sadowa, 1866.
4 Wednesday,	5 3	7 5	8 55	119th year Independence of the U. S. begins.
5 Thursday,	5 4	7 5	9 37	Battle Carthage, 1864.
6 Friday,	5 4	7 4	10 12	Treaty of London, 1827.
7 Saturday,	5 5	7 4	10 43	First American Congress at New York, 1765.
27) 7th Sunday after Trinity.				Mark 8. Day's length, 13h. 59m.
8 **Sunday,**	5 5	7 4	11 14	Edm. Burke died, 1797.
9 Monday,	5 6	7 4	11 44	President Taylor died, 1850.
10 Tuesday,	5 6	7 4	morn	Blackstone born, 1723.
11 Wednesday,	5 7	7 4	0 14	John Q. Adams born, 1767.
12 Thursday,	5 7	7 3	0 46	Orange Riots in New York, 1871.
13 Friday,	5 8	7 3	1 23	Treaty of Berlin signed, 1878.
14 Saturday,	5 8	7 3	2 5	French Revolution commenced, 1789.
28) 8th Sunday after Trinity.				Matth. 7. Day's length, 13h. 53m.
15 **Sunday,**	5 9	7 2	2 52	Tom Thumb died, 1883.
16 Monday,	5 9	7 2	3 42	Burr and Hamilton duel, 1804.
17 Tuesday,	5 10	7 2	rises	Dr. Watts born, 1674.
18 Wednesday,	5 10	7 1	7 56	Papal infallibility decreed, 1870.
19 Thursday,	5 11	7 1	8 30	Telegraph Strike, 1883.
20 Friday,	5 11	7 0	9 0	Am. Whist Congress Narragansett Pier, 1891.
21 Saturday,	5 12	7 0	9 23	Battle of the Pyramids, 1798.
29) 9th Sunday after Trinity.				Luke 16. Day's length, 13h. 46m.
22 **Sunday,**	5 13	6 59	9 54	R. R. riots in Pittsburg, 1877.
23 Monday,	5 13	6 59	10 21	Gen. Burnside born, 1824.
24 Tuesday,	5 14	6 58	10 50	Mormons settled in Utah, 1845.
25 Wednesday,	5 14	6 58	11 21	25th or 27th Landing of Cæsar in England, 55 B. C.
26 Thursday,	5 15	6 57	11 59	Robert Fulton born, 1765.
27 Friday,	5 15	6 57	morn	Bank of England incorporated, 1694.
28 Saturday,	5 16	6 56	0 45	Earthquake at Ischia, 1883.
30) 10th Sunday after Trinity.				Luke 19. Day's length, 13h. 38m.
29 **Sunday,**	5 17	6 55	1 39	Niagara Bridge completed, 1848.
30 Monday,	5 17	6 55	2 43	Battle Pyrenees, 1813.
31 Tuesday,	5 18	6 54	3 56	Horatio Bonar died, 1889.

Jewish Festivals and Fasts.—5654.—July 4 & 5, Rosh Chodesh Tamuz.

8th Month. AUGUST. 31 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

New Moon	1d.	6h.	24m. Morning.
First Quarter	8d.	4h.	5m. Morning.
Full Moon	16d.	7h.	17m. Morning.
Last Quarter	23d.	11h.	40m. Evening.
New Moon	30d.	2h.	4m. Evening.

DAY OF Month and Week.		Sun rises h. m.	Sun sets h. m.	Moon r, & s h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Wednesday,	5 18	6 53	sets	Battle of the Nile, 1798.
2	Thursday,	5 19	6 52	8 7	Alabama adopted constitution, 1819.
3	Friday,	5 20	6 52	8 40	Columbus sailed on first voyage, 1492.
4	Saturday,	5 20	6 51	9 13	Battle Mackinaw, 1814.
31)	11th Sunday after Trinity.			Luke 18.	Day's length, 13h. 29m.
5	**Sunday,**	5 21	6 50	9 43	First Latin Bible printed, 1462.
6	Monday,	5 21	6 49	10 14	Atlantic Cable laid, 1866.
7	Tuesday,	5 22	6 48	10 46	Karl Formes born, 1818.
8	Wednesday,	5 23	6 48	11 22	Geo. Canning died, 1827.
9	Thursday,	5 23	6 47	morn	Ashburton treaty, 1842.
10	Friday,	5 24	6 46	0 3	Greenwich Observatory founded, 1675.
11	Saturday,	5 25	6 45	0 48	Thad. Stevens died, 1868.
32)	12th Sunday after Trinity.			Mark 7.	Day's length, 13h. 19m.
12	**Sunday,**	5 25	6 44	1 38	Dr. A. B. Mott died, 1889.
13	Monday,	5 26	6 43	2 32	Earthquake in Scotland, 1816.
14	Tuesday,	5 26	6 42	3 29	Mrs. Sarah C. Polk, widow President Polk, died,
15	Wednesday,	5 27	6 41	4 27	Order of Jesuits begun, 1534. [1891.
16	Thursday,	5 28	6 40	rises	Detroit surrendered, 1812.
17	Friday,	5 28	6 39	7 32	Frederick the Great died, 1786.
18	Saturday,	5 29	6 38	7 38	Battle of Gravelotte, 1870.
33)	13th Sunday after Trinity.			Luke 10.	Day's length, 13h. 8m.
19	**Sunday,**	5 29	6 37	8 25	Judge J. S. Black died, 1883.
20	Monday,	5 30	6 36	8 53	President Benjamin Harrison born, 1833.
21	Tuesday,	5 30	6 35	9 24	Niger River expedition, 1841.
22	Wednesday,	5 31	6 34	9 58	Dr. F. J. Gall, founder of phrenology, died, 1828.
23	Thursday,	5 32	6 33	10 39	Captain Jack sentenced, 1873.
24	Friday,	5 32	6 32	11 29	Wilberforce born, 1759.
25	Saturday,	5 33	6 31	morn	Henry Shaw died, 1889.
34)	14th Sunday after Trinity.			Luke 17.	Day's length, 12h. 56m.
26	**Sunday,**	5 33	6 29	0 27	Cannons first used, 1346.
27	Monday,	5 34	6 28	1 33	Earthquake in Java, 1883.
28	Tuesday,	5 34	6 27	2 45	Great Britain abolished slavery, 1833.
29	Wednesday,	5 35	6 26	4 0	Oliver Wendel Holmes born, 1809.
30	Thursday,	5 35	6 25	sets	2nd Battle of Bull Run, 1862.
31	Friday,	5 36	6 24	7 8	John Bunyan died, 1683.

Jewish Festivals and Fasts.—5654.—August 3, Rosh Chodesh Ab; 12, Tisho beab; 17, Chamisho Osor.

9th Month. SEPTEMBER. 30 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

First Quarter	6d.	7h.	3m. Evening.
Full Moon	14d.	10h.	21m. Evening.
Last Quarter	22d.	6h.	32m. Morning.
New Moon	28d.	11h.	44m. Evening.

DAY OF Month and Week.		Sun rises h. m.	Sun sets h. m.	Moon r. & s. h. m	CHRONOLOGY OF IMPORTANT EVENTS.
1	Saturday,	5 37	6 23	7 41	French defeated at Sedan, 1870.
35)	15th Sunday after Trinity.			Matth. 17.	Day's length, 12h. 44m.
2	**Sunday,**	5 37	6 21	8 11	Great fire in London, 1666.
3	Monday,	5 38	6 25	8 42	Thiers died, 1877.
4	Tuesday,	5 38	6 19	9 19	French Republic proclaimed, 1870.
5	Wednesday,	5 39	6 18	10 0	Continental Congress met, 1774.
6	Thursday,	5 39	6 17	10 44	Lafayette born, 1757.
7	Friday,	5 40	6 15	11 32	Castillar inaugurated, 1873.
8	Saturday	5 40	6 14	morn	N. Pacific R. R. opened, 1883.
36)	16th Sunday after Trinity.			Luke 7.	Day's length, 12h. 32m.
9	**Sunday,**	5 41	6 13	0 25	François Jules P. Grevy, ex-Pres. French Republic,
10	Monday,	5 42	6 12	1 21	Perry's victory, Lake Erie, 1813. [died, 1891.
11	Tuesday,	5 42	6 10	2 18	Hudson Bay discovered, 1609.
12	Wednesday,	5 43	6 9	3 15	Baltimore bombarded, 1814.
13	Thursday,	5 43	6 8	4 13	Great floods in Spain, 3000 lives lost, 1891.
14	Friday,	5 44	6 7	5 8	Corner Stone of 14th of September Monument laid,
15	Saturday,	5 44	6 6	rises	Postal Convention at Berne, 1874. [N. O., 1891.
37)	17th Sunday after Trinity.			Luke 14.	Day's length, 12h. 19m.
16	**Sunday,**	5 45	6 4	6 57	Revolution in Guatemala, 1891.
17	Monday,	5 45	6 3	7 25	U. S. Constitution adopted, 1787.
18	Tuesday,	5 46	6 2	7 58	Fugitive Slave Law, signed, 1850.
19	Wednesday,	5 46	6 1	8 38	Battle of Bemis Heights, 1777.
20	Thursday,	5 47	5 59	9 24	Alexander the Great born, 356 B. C.
21	Friday,	5 47	5 58	10 18	Broderick killed, 1859.
22	Saturday,	5 48	5 57	11 21	Mormon Books revealed, 1827.
38)	18th Sunday after Trinity.			Matth. 22.	Day's length, 12h. 7m.
23	**Sunday,**	5 49	5 56	morn	Grace Greenwood born, 1823.
24	Monday,	5 49	5 54	0 30	Battle of Monterey, 1846.
25	Tuesday,	5 50	5 53	1 42	Eliza Cook, poet., died, 1889.
26	Wednesday,	5 50	5 52	2 53	Holy Alliance ratified, 1815.
27	Thursday,	5 51	5 51	4 2	Steamer Arctic lost, 1854.
28	Friday,	5 51	5 49	5 3	Brazil abolished slavery, 1871.
29	Saturday,	5 52	5 48	sets	André tried as a spy, 1780.
39)	19th Sunday after Trinity.			Matth. 9.	Day's length, 11h. 55m.
30	**Sunday,**	5 52	5 47	6 39	General Boulanger suicided, 1891.

Jewish Festivals and Fasts.—5654.—September 1 & 2, Rosh Chodesh Elul.

10th Month OCTOBER. 31 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

First Quarter	6d.	1h.	1m. Evening.
Full Moon	14d.	0h.	41m. Morning.
Last Quarter	21d.	0h.	56m. Morning.
New Moon	28d.	11h.	57m. Morning.

DAY OF Month and Week.		Sun rises h. m.	Sun sets h. m.	Moon r. & s h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Monday,	5 53	5 46	7 13	Disastrous Equinoxial Storm in Louisiana 1893, over
2	Tuesday,	5 53	5 45	7 51	Major André executed, 1780. [2000 Lives lost.
3	Wednesday,	5 54	5 43	8 34	Ruth Cleveland born, 1891.
4	Thursday,	5 55	5 42	9 23	Mrs. Gatty, "Aunt Judy," died, 1873.
5	Friday,	5 55	5 41	10 15	Crystal Palace, N. G., burned, 1858. [1891,
6	Saturday,	5 56	5 40	11 10	Wm. Henry Smith, First Lord of the Treasury, died.
40)	20th Sunday after Trinity.				Matth. 22. Day's length, 11h. 42m.
7	**Sunday,**	5 57	5 39	morn	Edgar A. Poe died, 1849.
8	Monday,	5 57	5 37	0 8	Alaska ceded to the United States, 1867.
9	Tuesday,	5 58	5 36	1 7	Achille Perelli, painter and sculptor, died in N. O.,
10	Wednesday,	5 58	5 35	2 3	First Overland Mail, 1858. [1891.
11	Thursday,	5 59	5 34	2 59	The Bahamas discovered, 1492.
12	Friday,	6 0	5 33	3 55	Gen. R. E. Lee died, 1870.
13	Saturday,	6 0	5 32	4 51	Joachin Murat shot, 1815.
41)	21st Sunday after Trinity.				Matth. 9. Day's length, 11h. 30m.
14	**Sunday,**	6 1	5 31	5 49	Battle of Jena, 1806.
15	Monday,	6 2	5 30	rises	Napoleon arrived at St. Helena, 1815.
16	Tuesday,	6 3	5 29	6 37	Sailors U.S. Steamship Baltimore mobbed at Valpa-
17	Wednesday,	6 3	5 27	7 22	James Partin, writer, died, 1891. [raiso, 1891.
18	Thursday,	6 4	5 26	8 14	Convent of Franciscan Poor Clare Nuns, dedicated
19	Friday,	6 4	5 25	9 14	Battle of Yorktown, 1781. [N, O., 1891.
20	Saturday,	6 5	5 24	10 21	Grace Darling died, 1842.
42)	22d Sunday after Trinity.				Matth. 18. Day's length, 11h. 17m.
21	**Sunday,**	6 6	5 23	11 31	Statue of Henry W. Grady unveiled, 1891.
22	Monday,	6 6	5 22	morn	Revocation of Edict of Nantes, 1685.
23	Tuesday,	6 7	5 21	0 30	A. H. Davenport died, 1873.
24	Wednesday,	6 8	5 20	1 47	Pacific Telegraph completed, 1861.
25	Thursday,	6 9	5 19	2 54	Chancer died, 1400.
26	Friday,	6 9	5 18	3 56	Hogarth died, 1765.
27	Saturday,	6 10	5 17	4 59	Anti Jewish riots in Russia, 1891.
43)	23d Sunday after Trinity.				Matth. 22. Day's length, 11h. 6m.
28	**Sunday,**	6 11	5 17	6 3	The N. W. Passage discovered, 1850.
29	Monday,	6 12	5 16	sets	Surrender of Metz, 1870.
30	Tuesday,	6 12	5 15	6 29	Gambetta born, 1838.
31	Wednesday,	6 13	5 14	7 13	Hallowe'en. Nevada made a State, 1864.

Jewish Festivals and Fasts.—5655.—October 1 & 2, Rosh Hashonah; 10, Yom Kippur; 15 & 16, First days Suckoth; 23, Simchas Torah; 30 & 31, Rosh Chodesh Marcheshwan.

11th Month. NOVEMBER. 30 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

First Quarter	5d.	9h.	16m. Morning.
Full Moon	13d.	1h.	49m. Morning.
Last Quarter	19d.	8h.	8m. Evening.
New Moon	27d.	2h.	54m. Morning.

	DAY OF Month and Week.	Sun rises h. m.	Sun sets h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Thursday,	6 14	5 13	8 5	All Saints' Day.
2	Friday,	6 15	5 12	9 0	Erie Canal finished, 1825.
3	Saturday,	6 15	5 12	9 57	Bryant, poet, born, 1794.
44)	24th Sunday after Trinity.			Matth. 9.	Day's length. 10h. 55m.
4	**Sunday,**	6 16	5 11	10 54	Calhoun entered Congress, 1811.
5	Monday,	6 17	5 10	11 50	The American 74 launched, 1782.
6	Tuesday,	6 18	5 9	morn	Abraham Lincoln elected president, 1860.
7	Wednesday,	6 18	5 9	0 46	Battle Tippecanoe, 1811.
8	Thursday,	6 19	5 8	1 42	Cortez entered Mexico, 1519.
9	Friday,	6 20	5 7	2 38	Prince of Wales born, 1841.
10	Saturday,	6 21	5 7	3 34	Catholic Centenary, 1889.
45)	25th Sunday after Trinity.			Matth. 24.	Day's length, 10h. 44m.
11	**Sunday,**	6 22	5 6	4 35	Session Am. Bankers Association in New Orleans,
12	Monday,	6 23	5 6	5 40	Don Piatt, journalist, died, 1891. [1891.
13	Tuesday,	6 23	5 5	rises	California Constitution adopted, 1849.
14	Wednesday,	6 24	5 5	6 4	Leibnitz died, 1716.
15	Thursday,	6 25	5 4	7 4	Brazil declared a Republic, 1889.
16	Friday,	6 26	5 4	8 12	John Bright born, 1811.
17	Saturday,	6 27	5 3	9 22	First Congress in Washington, 1800.
46)	26th Sunday after Trinity.			Matth. 25.	Day's length, 10h. 35m.
18	**Sunday,**	6 28	5 3	10 32	Standard Time adopted, 1883.
19	Monday,	6 28	5 3	11 40	William J. Florence, actor, died, 1891.
20	Tuesday,	6 29	5 2	morn	United States treaty with England, 1794.
21	Wednesday,	6 30	5 2	0 45	Treaty of Stockholm, 1855.
22	Thursday,	6 31	5 2	1 48	Professor Dugold Stewart born, 1753.
23	Friday,	6 32	5 1	2 49	Charlotte Cushman, actor, born, 1816.
24	Saturday,	6 33	5 1	3 51	Earl Lytton (Owen Meredith), died, Paris, 1891.
47)	27th Sunday after Trinity.			Matth. 15.	Day's length, 10h. 28m.
25	**Sunday,**	6 33	5 1	4 54	New York evacuated, 1783.
26	Monday,	6 34	5 1	5 56	Sojourner Truth died, 1883.
27	Tuesday,	6 35	5 0	sets	Pacific Ocean discovered by Balboa, 1520.
28	Wednesday,	6 36	5 0	5 56	Washington Irving died, 1859.
29	Thursday,	6 37	5 0	6 49	Golden jubilee of Archbishop Kenrick, St. Louis,
30	Friday,	6 38	5 0	7 46	Charter Suez Canal, 1854. [1891.

Jewish Festivals and Fasts.—5655.—November 29, Rosh Chodesh Kislev.

12th Month. DECEMBER. 31 Days.

Calculated for the Latitude of the Southern States.

MOON'S PHASES.

First Quarter	5d.	6h.	15m. Morning.
Full Moon	12d.	1h.	46m. Evening.
Last Quarter	19d.	5h.	16m. Morning.
New Moon	26d.	8h.	20m. Evening.

DAY OF Month and Week.		Sun rises h. m.	Sun sets h. m.	Moon r. & s. h. m.	CHRONOLOGY OF IMPORTANT EVENTS.
1	Saturday,	6 39	5 0	8 44	Princess of Wales born, 1844.
48)	1st Sunday in Advent.			Matth. 21.	Day's length, 10h. 21m.
2	**Sunday,**	6 39	5 0	9 40	John Brown, hung 1859.
3	Monday,	6 40	5 0	10 35	Illinois admitted as a State, 1818.
4	Tuesday,	6 41	5 0	11 30	William Henry Harrison nominated, 1839.
5	Wednesday,	6 42	5 1	morn	Kossuth arrived in the U. S., 1851.
6	Thursday,	6 43	5 1	0 26	Jefferson Davis died, 1889.
7	Friday,	6 43	5 1	1 21	Washington's farewell to Congress, 1796.
8	Saturday,	6 44	5 1	2 18	Feast of the Immaculate Conception of Blessed [Virgin.
49)	2d Sunday in Advent.			Luke 22.	Day's length, 10h. 16m.
9	**Sunday,**	6 45	5 1	3 18	John Milton born, 1608.
10	Monday,	6 45	5 1	4 24	Oliver Johnson died, 1889.
11	Tuesday,	6 46	5 1	5 32	Indiana admitted as a State, 1816.
12	Wednesday,	6 47	5 2	rises	Robert Browning died, 1889.
13	Thursday,	6 47	5 2	5 53	Battle Fredricksburg, 1862.
14	Friday,	6 48	5 2	7 5	Anthony Wayne died, 1796.
15	Saturday,	6 49	5 3	8 20	Geneva Tribunal, 1871.
50)	3d Sunday in Advent.			Matth. 11.	Day's length, 10h. 14m.
16	**Sunday,**	6 49	5 3	9 31	Boston Tea Party, 1773.
17	Monday,	6 50	5 3	10 37	John G. Whittier born, 1807.
18	Tuesday,	6 50	5 4	11 42	Thirteenth Amendment ratified, 1865.
19	Wednesday,	6 51	5 4	morn	Bayard Taylor died, 1878.
20	Thursday,	6 51	5 4	0 44	South Carolina seceded, 1860.
21	Friday,	6 52	5 5	1 46	Benjamin Disraeli born, 1805.
22	Saturday,	6 52	5 5	2 47	Yale College founded, 1700.
51)	4th Sunday in Advent.			John 1.	Day's length, 10h. 13m.
23	**Sunday,**	6 53	5 6	3 48	Henry W. Grady died, 1889.
24	Monday,	6 53	5 7	4 49	Edwin M. Staunton died, 1869.
25	Tuesday,	6 54	5 7	5 49	Christmas Day.
26	Wednesday,	6 54	5 8	6 45	Stephen Girard died, 1831.
27	Thursday,	6 54	5 8	sets	St. John, Evangelist.
28	Friday,	6 55	5 9	6 35	Macauley died, 1859.
29	Saturday,	6 55	5 10	7 32	William E. Gladstone born, 1809.
52)	Sunday after Christmas.			Luke 2.	Day's length, 10h. 15m.
30	**Sunday,**	6 55	5 10	8 28	New Mexico bought, 1853.
31	Monday,	6 56	5 11	9 23	Battle of Murfreesboro, 1862.

Jewish Festivals and Fasts.—5655.—December 23, Chanukah; 28, Rosh Chodesh Tebet.

A Few Remarks on Raising Vegetables for Shipping.

Within the past few years the raising of early vegetables for shipping West has become quite an item in the neighborhood of New Orleans and is assuming larger proportions every year. We have advantages here, which are not found elsewhere, for that branch of industry. Freights have been reduced to all points from here, and special cars, built expressly for carrying green vegetables and fruit, have been put on the railroads. We are earlier here than at any other point, and with the rich ground we have, and the large supply of manure to be had for the hauling only, early vegetables can be raised very successfully.

Almost every kind of vegetables are shipped from here, but Beans, Cucumbers, Beets, Tomatoes, Cabbage and Peas form the bulk of shipment. For Beans, the Dwarf Wax, Improved Valentine and "Best of All" are principally planted for shipping purposes; the latter carry well and find ready sale. The Wax varieties do well in a dry season, but in a wet one they are apt to spot, which makes them unfit for shipping. The Wardwell's Kidney Wax and dwarf Flageolet have the preference amongst the dwarf sorts. The Flageolet Wax Pole is the best kind and follows the dwarf varieties in close succession. If they have had a good season to grow, so they arrive in good order at destination, they will sell higher than any other variety. The Crease Back—*a green* podded Pole Bean introduced here by me—is well adapted for shipping. It is very early and will follow the Dwarf Beans closely in maturing. Thousands of bushels of green pods are shipped from here to the Western markets. They are generally stenciled "Mobile Beans," which name is wrongly applied. Very few of this variety are planted at that place.

In the way of Cucumbers, the Improved White Spine and New Orleans Market are the best varieties, as they bear abundantly, keep their color better, and are superior for shipping to any other. I have been supplying the largest growers in this vicinity in that line with seed, the stock of which cannot be surpassed in quality. Of Beets only the dark red Blood Turnip or the Egyptian should be planted for shipping purposes. The Egyptian is a very quick growing variety, and should not be sown quite so early as the Blood Turnip, which ought to be sown in September and October; for the former variety, January is time enough. The strain of Beets which I have been selling for years is raised for me in Connecticut; it is dark red, very early and cannot be surpassed for shipping purposes.

For Tomatoes, the Extra Early Dwarf comes in bearing first, but should be planted only for the first crop, as when large varieties come in the market, the former do not sell as well. Great improvements have been made of late years in Tomatoes; the varieties raised and introduced by Livingston's Sons are perfect, and hardly any improvement can be made on such varieties as the Paragon, Favorite, Acme and Beauty. New Orleans is not a good point to ship Tomatoes from, as they hardly ever arrive at destination in good condition. Along the Jackson R. R., where the land is more sandy, a better article is raised for shipping. Lettuce is shipped quite extensively; the New Orleans Improved Passion is used principally for that purpose.

Potatoes and Onions are shipped in large quantities, but the former are very uncertain in regard to prices. Potatoes have not been a good or paying crop the past season. Those raised on the upper and lower coast arrived in good order; but the bulk which came from Lafourche to this market did not arrive in as good condition as in former years. Some were destroyed by the crevasse, others were dug too green for fear that they would be inundated by the approaching water. Price was low all the season through.

The Onion crop was large, quality good. The Bermuda seed produced nice onions, but they will not keep; in fact they are only good for very early shipping or home use and market. For this section there is only one reliable kind, and that is the Creole.

The Cabbage crop was good and sold at remunerative prices, both Fall and Spring crops. For Fall we use the Superior Flat Dutch, Crescent City and Stein's Flat Dutch, and a small percentage of earlier varieties, such as Brunswick, Early Summer, Early Flat Dutch and Early Drumhead.

For Spring, Improved Early Summer and Brunswick are used almost exclusively. The surest way is to sow the seeds during November in cold frames or in at least a sheltered place, where they can be protected from cold in case of necessity. Beets paid well. Cucumbers raised in frames brought good prices. Those planted in the open ground were attacked by a fungus which shortened the crop about this vicinity and coast. At Grand Isle there was a good crop made; planters there used Tobacco Dust in large quantities, which destroyed the insects. Peas and Beans paid well. However the shipping of these did not last long.

The Musk Melon crop was very large, but owing to the continued rains the quality was impaired. Very few choice ones came to the market. The Osage Melon, so highly prized in the West, will never become a favorite here. The roughly netted New Orleans Market sort has no equal in a favorable season in size or luscious flavor. They brought higher prices than any other kind when shipped from here to Chicago. Some fields were attacked by same kind of fungus which injured the cucumber crop, and thereby impaired the quality of the melons. Carrots are shipped in considerable quantities; the half-long varieties are generally used for that purpose. Tomatoes paid well. Of late a good many Eggplants are shipped; they have paid well; for this purpose I recommend the New Orleans Market variety, which stands the

heat well, and the fruit carries better when shipped than the New York Market. The kind we cultivate here is oblong, dark purple; perfectly thornless on the stems and leaves. Radishes for shipping are raised considerably. The Long Scarlet short top is used for that purpose.

Gardeners and others who contemplate raising vegetables for shipping are invited to give me a call. From the fact that all staple articles are raised for me by contract, in such sections best suited to mature the varieties we need for our climate, and the interest I take in the seed business, coupled with a thorough knowledge of same, enables me to assist in making selections of seeds for the purpose. The interest of my customers and mine are identical. My stock is the best selected and largest in the South.

THE VEGETABLE GARDEN.

The size depends upon the purposes for which it is intended; whether the family is large or small, and the time which can be devoted to its cultivation. The most suitable soil for a garden is a light loam. When the soil is too heavy, it ought to be made light by applying stable manure and working up the ground thoroughly. Trenching as done in Europe, or North, is not advisable, at least where there is any cocoa, as by trenching the roots of this pest will get so deeply incorporated with the soil that trouble will be met with afterwards to get rid of it. Exposure towards the East is desirable. If there are one or more large trees in the garden, or on the immediate outside, their shade can be used in which to sow Celery, Cabbage and other seeds during the hot summer months, which will be an advantage. The seed beds for this purpose should be so arranged as to receive only the morning or evening sun. It is of the greatest importance that the ground should be well drained, otherwise it will be impossible to raise good vegetables. The most reliable manure for general purposes is well decomposed stable or barnyard manure, Cow manure will suit best for light, sandy soil, and horse manure for heavy, stiff clay lands. For special purposes Peruvian Guano, Commercial Fertilizer, Raw Bone, Cotton Seed Meal and other commercial manures may be employed with advantage. Of late years most gardeners who work their land with a plow, use Cow peas as a fertilizer with excellent result. They are sown broad-cast at the rate of 1½ bushels to the acre, and when large enough, they are turned under. When the land is very sandy, cotton seed meal has the most lasting effect. For quick growing crops, such as Melons, Cucumbers, etc., the Commercial Fertilizer and Guano applied in the hills are very good. Soap suds are good for Celery; it is astonishing to perceive the difference in the size of those stalks which are watered every few days with the suds, and others on the same ground which are not. Wood ashes are best for Peas, either used as a top dressing when the Peas just come out of the ground, or else sprinkled in the rows when planted. The New Orleans market gardeners raise as fine vegetables as can be produced anywhere; in fact, some varieties cannot be excelled, and very few gardeners use anything but stable manure.

Rotation of Crops is another important item. Beets, Carrots and other roots should not be grown in succession on the same ground, but should be changed to those which grow above ground, such as Lettuce, Beans, Peas, etc. Good seed, good ground and good cultivation are essential in order to raise good vegetables. When plants are up, the ground should be stirred frequently; weeds ought not to be suffered to go into seed, but should be destroyed as soon as they appear. Hoeing and working the young crops during dry weather is very beneficial, because the weeds are then easily killed, and hoeing the ground will make it retain moisture better than if it were left alone.

SOWING SEEDS.

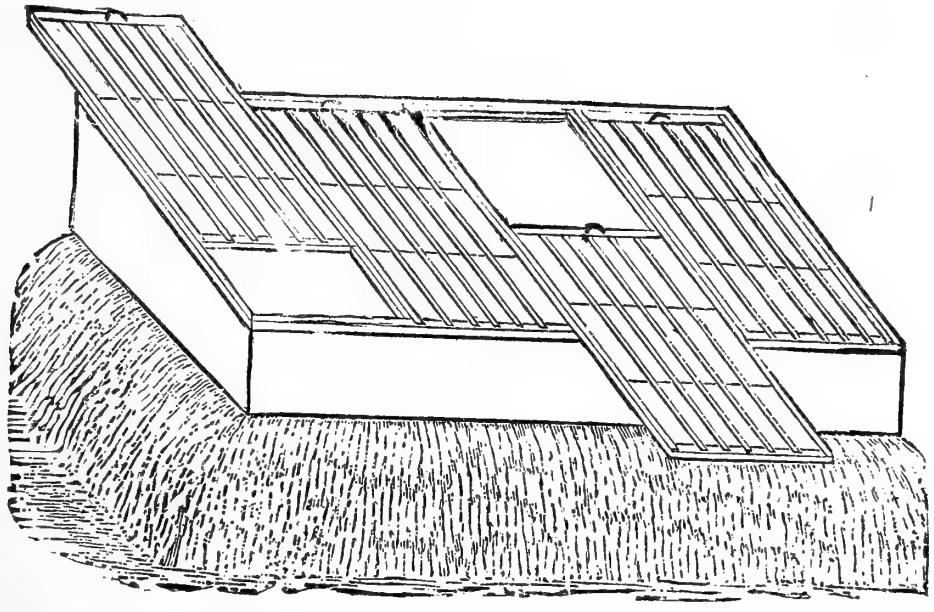
Some seeds are sown at once where they are to remain and mature. Others are sown in seed beds and transplanted afterwards. Seeds should be covered according to their sizes, a covering of earth twice the size of the seed is about the maximum. Some seeds, such as Beans, Corn and Peas, can be covered from one to two inches, and they will come up well. Here is a difference again : Wrinkled Peas and Sugar Corn have to be covered lighter and more carefully than Marrowfat Peas or the common varieties of Corn. It depends upon the nature of the soil, season of the year, etc. For instance, in heavy wet soils seeds have to be covered lighter than in sandy light ground. Seeds which are sown during summer in the open ground, such as Beets and Carrots, should be soaked over night in water and rolled in ashes or plaster before sowing; they will come up quicker. When they are sown in a seed bed, the ground should be light enough not to bake after a rain. Some varieties of seeds require shade when sown during the summer, such as Cauliflower, Celery and Lettuce. Care should be taken to have the shade at least three feet from the ground, and shade only after the sun has been on the bed for two or three hours; and remove again early in the afternoon, so the plants may become sturdy. If too much shaded they will be drawn up, long-legged, and not fit to be set out in the open ground. The most successful cabbage planters in this neighborhood sow their seeds in the

open ground, towards the end of July and during August, and give them no shade but water, and keep the ground moist from the day of sowing till the plants are transplanted. Seeds should be sown thinly in the seed bed. If plants come up too thickly they are apt to damp off.

Lettuce seed should be sprouted during the hot months before sowing, according to directions given for June.

To sow Turnips on a large scale during the late summer and early fall months, the ground should be prepared in advance, and the seed sown just before or during rain, Small pieces of ground, of course, can be sown at any time and watered afterwards. For covering all kinds of seeds, a fork is preferable to a rake; with either implement, care must be taken not to cover the seeds too deep. Beans, Peas and Corn are covered with the hoe. Some fine seeds, such as Thyme or Tobacco, are covered enough when pressed with the back of the spade to the ground. The seedsman is often blamed for selling seeds which have not come up, when the same are perfectly good; but, perhaps, through ignorance the party by whom they were sown, placed them too deep or too shallow in the ground, or the ground may have been just moist enough to swell the seeds, and they failed to come up. At other times washing rains after sowing beat the ground and form a crust that the seeds are not able to penetrate, or if there is too much fresh manure in the ground, it will burn the seeds and destroy its vitality.

When seeds, such as Beans, Cucumbers, Melons and Squash, are planted before it is warm enough, they are very apt to rot if it rains.



THE HOT BED.

Owing to the open winters in the South, hot beds are not so much used as in the North, except to raise such tender plants as Egg-Plants, Tomatoes and Peppers. There is little forcing of vegetables done here, except as regards Cucumbers and Lettuce; and, if we do not have any hard frosts, the latter does better in the open ground than under glass. To make a hot bed is a very simple thing. Any one who has the use of tools can make the wooden frame; the sashes may be obtained from any sash factory. I consider a wooden frame from five to six feet wide and ten feet six inches long a very good size. It should be at least six inches higher at the back than in the front, and covered by three sashes 3½x5 feet. The manure ought not to be over one month old; it should be thrown together in a heap, and when commencing to heat, be worked over with a fork, and the long and short manure evenly mixed. In this State the ground is generally low, and to retain the heat of the manure for a long time it is best to put the manure on top of the ground—that is, make a bank two feet longer and two feet wider than the frame. Keep the edges straight and the corners firm; when thrown up about eighteen inches trample the manure down to six or eight inches, then put on another layer of eighteen inches and trample down again; place thereon the frame and sash, and fill in six inches of good earth. After about five days stir the ground to kill the weeds which may have come up, then sow the seeds. In lower Louisiana the ground is too wet to dig out eighteen inches deep, throw in the manure and trample down as recommended in the North; by a few hard rains, such as we frequently have in winter, the manure would become so soaked beneath the ground that the heat would be gone. Another advantage, when the frame is put above the ground, is, that it will go down with the manure gradually, and there remains always the same space between the glass and the ground. If the ground is dug out and the manure put into the frame, the ground will sink down so low, after a short time, that the sun will have little effect upon it, and plants will become spindly.

Seeds requisite to produce a given number of Plants and sow a given amount of ground.

	Quantity per acre.
Artichoke, 1 oz. to 500 plants	½ lb.
Asparagus, 1 oz. to 200 plants	5 lbs.
Barley	2½ bu.
Beans, dwarf, 1 quart to 150 feet of drill	1¼ "
Beans, pole, 1 quart to 200 hills	½ "
Beet, garden, 1 oz. to 100 feet of drill	10 lbs.
Beet, Mangel, 1 oz. to 150 feet of drill	6 "
Broccoli, 1 oz. to 3,000 plants	5 oz.
Broom Corn	10 lbs.
Brussels Sprouts, 1 oz. to 3,000 plants	5 oz.
Buckwheat	½ bu.
*Cabbage, 1 oz. to 3,000 plants	5 oz.
Carrot, 1 oz. to 250 feet of drill	2½ lbs
*Cauliflower, 1 oz. to 3,000 plants	5 oz.
*Celery, 1 oz. to 10,000 plants	4 "
Clover, Alsike and White Dutch	6 lbs
" Lucerne, Large Red & Crimson Trefoil	8 lbs.
" Medium	10 lbs.
*Collards, 1 oz. to 2,500 plants	6 oz.
Corn, sweet, 1 quart to 500 hills	8 qts.
Cress, 1 oz. to 150 feet of drill	8 lbs.
Cucumber, 1 oz. to 80 hills	1¼ "
Egg Plant, 1 oz. to 2,000 plants	3 oz
Endive, 1 oz. to 300 feet of drill	3 lbs.
Flax, broadcast	1½ bu.
Gourd, 1 oz. to 25 hills	2½ lbs
Grass, Blue Kentucky	2 bu.
" Blue English	1 "
" Hungarian and Millet	½ "
" Mixed Lawn	3 "
" Orchard, Perennial Rye, Red Top, Fowl Meadow and Wood Meadow	2 "
Garlic, bulbs, 1 lb. to 10 feet of drill	
Hemp	½ bu.
Kale, 1 oz. to 3,000 plants	4 oz.
Kohl-Rabi, 1 oz. to 200 feet of drill	1½ lbs.
Leek, 1 oz. to 250 feet of drill	4 "
Lettuce, 1 oz. to 250 feet of drill	3 "
Melon, Musk, 1 oz. to 100 hills	1¾ "
Melon, Water, 1 oz. to 25 hills	1½ "
Nasturtium, 1 oz. to 50 feet of drill	10 "
Oats	2½ bu.
Okra, 1 oz. to 50 feet of drill	10 lbs.
Onion Seed, 1 oz to 200 feet of drill	4 "
" " for Sets	30 "
Onion Sets, 1 quart to 20 feet of drill	8 bu.
Parsnip, 1 oz. to 250 feet of drill	5 lbs.
Parsley, 1 oz. to 250 feet of drill	8 "
Peas, garden, 1 quart to 150 feet of drill	1½ bu.
" field	2½ "
Pepper, 1 oz. to 1,500 plants	4 oz.
Potatoes	10 bu.
Pumpkin, 1 quart to 300 hills	4 qts.
Radish, 1 oz. to 150 feet of drill	8 lbs.
Rye	1½ bu.
Salsify, 1 oz. to 60 feet of drill	8 lbs.
Spinach, 1 oz. to 150 feet of drill	10 "
Summer Savory, 1 oz. to 500 feet of drill	2 "
Squash, summer, 1 oz. to 40 hills	2 "
" winter, 1 oz. to 10 hills	3 "
Tomato, 1 oz. to 3,000 plants	3 oz.
Tobacco, 1 oz. to 5,000 plants	2 "
Turnip, 1 oz. to 250 feet of drill	1½ lbs.
Vetches	2 bu.
Wheat	1 to 2 "

* The above calculations are made for sowing in the spring; during the summer it requires double the quantity to give the same amount of plants.

Number of Plants or Trees to the Acre at given distances.

Dis. apart.	No. Plants.	Dis. apart.	No. Plants.	Dis. apart.	No. Plants.	Dis. apart.	No. Plants.
½ foot	174,240	3 feet by 3 feet	4,840	6 feet	1,210	12 feet	302
1 "	43,560	4 " 1 foot	10,888	7 "	889	15 "	193
1½ feet	19,360	4 " 2 feet	5,444	8 "	680	18 "	134
2 "	10,890	4 " 3 "	3,629	9 "	573	20 "	108
2½ "	6,969	4 " 4 "	2,722	10 "	435	25 "	69
3 feet by 1 foot	14,520	5 " 5 "	1,742	11 "	360	30 "	49
3 " 2 feet	7,260						

Standard Weight of Various Articles.

Apples	per bush.	48	lbs.
" dried	"	22	"
Barley	"	48	"
Beans	"	60	"
Buckwheat	"	48	"
Broom Corn	"	46	"
Blue Grass, Kentucky	"	14	"
" " English	"	24	"
Bran	"	20	"
Canary Seed	"	60	"
Castor Beans	"	46	"
Clover Seed	"	60	"
Corn, shelled	"	56	"
" on ear	"	70	"
Corn Meal	"	50	"
Charcoal	"	22	"
Coal, Mineral	"	80	"
Cranberries	"	40	"
Dried Peaches	"	28	"
Flax Seed	"	56	"
Hemp Seed	"	44	"
Hungarian Grass Seed	"	48	"
Irish Potatoes, heaping measure	"	60	"
Millet	"	50	"
Malt	"	38	"
Oats	"	32	"
Osage Orange	"	33	"
Orchard Grass	"	14	"
Onions	per bush.	54	lbs.
Peas	"	60	"
Plastering Hair	"	8	"
Rape	"	50	"
Rye	"	56	"
Red Top Seed	"	14	"
Salt, Coarse	"	50	"
Salt, Michigan	"	56	"
Sweet Potatoes	"	56	"
Timothy Seed	"	45	"
Turnips	"	58	"
Wheat	"	60	"
Beef and Pork, per bbl., net		200	"
Flour, per bbl., net		196	"
White Fish and Trout, per bbl., net		200	"
Salt, per bbl.		280	"
Lime, "		220	"
Hay, well settled, per cubic foot		4½	"
Corn, on cob, in bin	"	22	"
" shelled	"	45	"
Wheat,	"	48	"
Oats,	"	25½	"
Potatoes,	"	38½	"
Sand, dry,	"	95	"
Clay, compact,	"	135	"
Marble,	"	169	"
Seasoned Beech Wood, per cord		5,616	"
" Hickory,	"	6,960	"

DESCRIPTIVE CATALOGUE OF VEGETABLE SEED.

ARTICHOKE.

ARTICHAUT (Fr.), ARTISCHOKE (Ger.), ALCACHOFA (Sp.).

Large Green Globe. This is a very popular vegetable in the South, and much esteemed by the native as well as the foreign population from the South of Europe. It is extensively cultivated for the New Orleans market. It is best propagated from suckers which come up around the large plants. Take them off during the fall and early winter months; plant them four feet apart each way. Every fall the ground should be manured and spaded or plowed between them; at the same time the suckers should be taken off. If planted by seed, sow them in drills during winter or early spring, three inches apart and one foot from row to row; cover with about one half inch of earth. The following fall the plants can be transplanted and cultivated as recommended above. The seeds I offer are imported by me from Italy, and of superior quality; I can also furnish sprouts or plants in the fall of the year, at $1.50 per 100.

Green Globe Artichoke.

The Early Campania I have dropped from the list; it is not hardy enough for our section. Dies out during summer when we have hard rains.

ASPARACUS.

ASPERGE (Fr.), SPARGEL (Ger.), ESPARAGOS (Sp.).

Conover's Colossal. The Asparagus is not extensively cultivated in the South; not that it is not liked well enough, but from the fact that it does not succeed as well as in more Northern latitudes. It seems that it is short-lived, the roots giving out soon or throwing up very small shoots.

The ground should be well manured and prepared before either the roots or seeds are planted. For this climate the sowing of seed is preferable. Roots are generally imported from the North, and I have found that the roots raised here, one year old, are as strong as those received from the North, three years old. Plant the seed in early spring. Soak over night in water; plant in rows, or rather hills, one foot apart and two feet between; put from four to five seeds in each hill; when well up thin out to two plants. The following winter, when the stalks are cut off, cover with a heavy coat of well rotted manure and a sprinkling of salt; fishbrine will answer the same purpose. In the spring fork in the manure between the rows, and keep clean of weeds. The same treatment should be repeated every year. The bed should not be cut before being three years established. Care must be taken not to cut the stalks too soon in the fall of the year—not until we have had a frost. If cut before, it will cause the roots to throw up young shoots, which will weaken them. Roots, 75c. per 100; $6.00 per 1000.

BUSH BEANS.

CULTURE.

Place in rows eighteen inches apart; drop a bean every two or three inches. Plant from end of February, and for succession, every two or three weeks to May. Bush Beans planted in this latitude during June and July, will not produce much. August and September are good months in which to plant again; they will produce abundantly till killed by the frost. Do not cover the seeds more than two inches.

POLE BEANS.

Lima Beans should not be planted before the ground has become warm in spring. Strong poles ought to be set in the ground from four to six feet apart, and the ground drawn around them before the seed is planted. It is always best to plant after a rain and with the eye of the bean down. The other varieties can be planted flat, and not more than three to four feet apart, and hilled after they are up. Do not cover the seeds more than two inches; one inch is enough for the Southern Prolific and Crease Back.

BEANS.

(DWARF, SNAP or BUSH.)

HARICOT (Fr.), BOHNE (Ger.), FRIJOLENANO (Sp.).

Pride of Newton.
Early Valentine Red Speckled.
Early Mohawk Six Weeks.
German Dwarf Wax.
White Kidney.
Early China Red-Eye.
Extra Early Refugee.
Red Kidney.
Grenell's Improved Dwarf Golden Wax.
Best of All.
Improved Valentine.
Wardwell's Dwarf Kidney Wax.
Henderson's Dwarf Lima.
Burpee's Bush Lima.

Pride of Newton. This is a robust, strong growing bean with long flat pods, which are light green. It is quite early and productive. The bean is similar to the Yellow Six Weeks in color, but much hardier.

Early Valentine, one of the best varieties; pods round, tender and quite productive; not much planted for the market. Excellent for shipping.

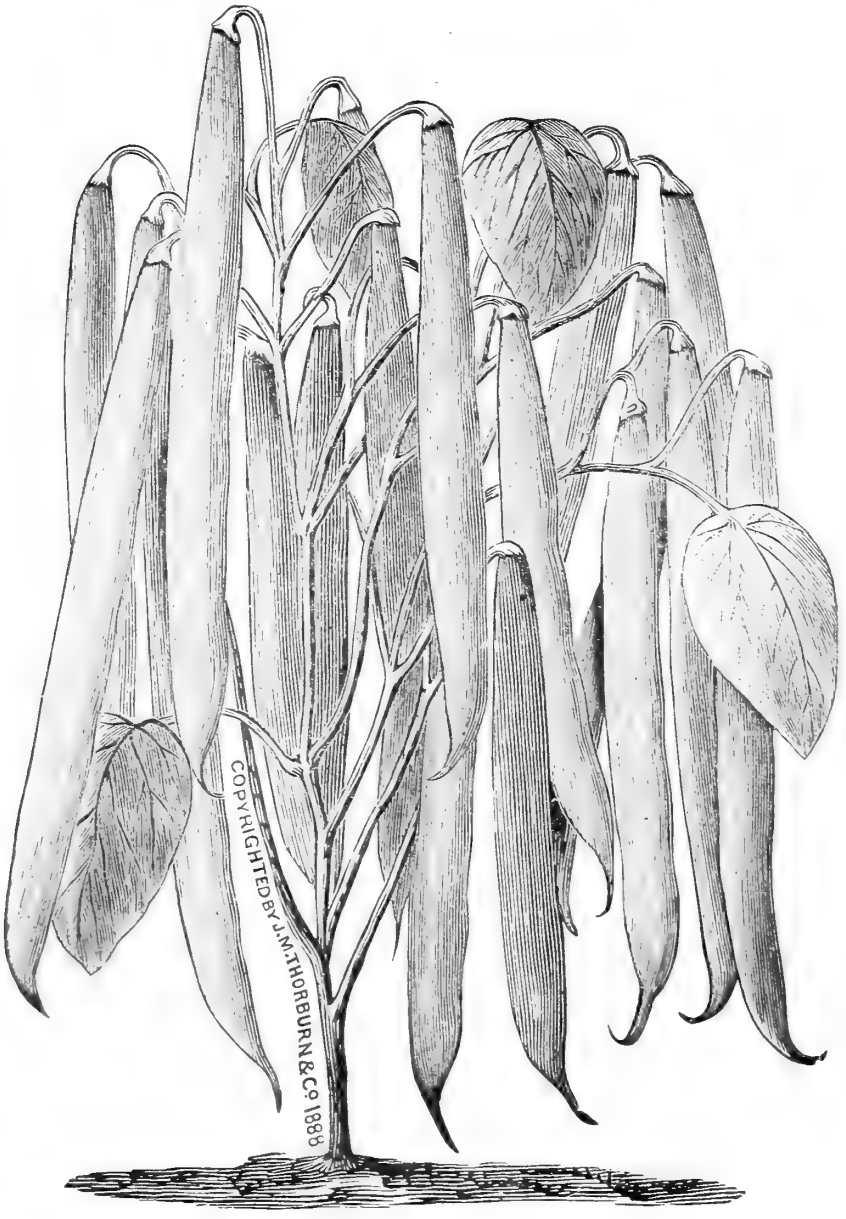
Early Mohawk Six Weeks. This is a long podded variety, and very hardy. It is used to a large extent for the market for the first planting; very productive.

Early Yellow Six Weeks. This is the most popular sort among market gardeners. Pods flat and long; a very good bearer, but not so good for shipping as the Mohawk or Valentine.

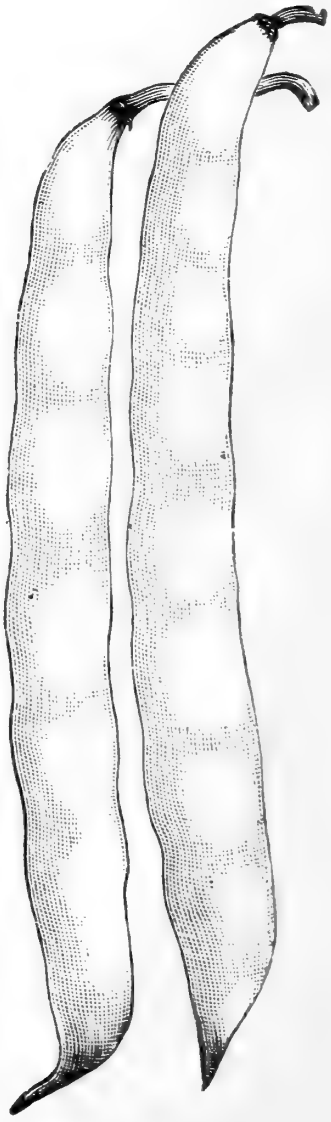
White Kidney. A good strong growing variety, not much planted.

Early China Red-Eye. Early and of good quality, but not very popular.

Red Kidney. This kind is largely planted for the New Orleans market. It is a coarse growing variety, and much used for shelling when the pods turn yellow, so that the beans are well developed, but yet soft.



Pride of Newton Bean.



Dwarf Golden Wax Bean.

Best of All. A variety from Germany of great merit, *introduced here by me.* It is green podded, long and succulent; it is prolific and well flavored. An excellent variety for shipping and family use. It is not quite so early as the Mohawk, but is of superior quality for shipping, and, therefore, is almost the only kind planted here for that purpose. The cut is a good representation as it grows; it shows only two-thirds of its natural size. Can not be too highly recommended.

Improved Valentine This variety has all the good qualities of the old Valentine; only, it is ten days earlier, a great consideration when planted for the market; it has taken the place of the old variety of Valentine.

Henderson's Bush Lima Beans. This is a dwarf Butter Bean which requires no poles, it grows from 18 to 24 inches high. It is early and productive. It should be called *Dwarf Carolina or Sewee Beans*, as the pods are the size of that variety. Recommend same for family use, or where it is difficult to obtain poles.

Burpee's Bush Lima. Novelty of last year. The pods are of same size as the Large Pole Lima and of same flavor. It is a stronger grower than the Henderson's Bush Lima.

Extra Early Refugee. Is an improvement on the well-known old Refugee. It is very early and prolific. Owing to its good qualities, it has become a favorite with market gardeners for shipping. Pods round and fleshy.

Improved Prolific Dwarf German Wax. This variety is a great improvement on its parent the Dwarf German Wax. Pods are longer and more productive, with the good qualities of the old kind, which was the first Wax Bean introduced here from Germany.

Grenell's Improved Rust Proof Golden Wax Beans. This variety is an improvement on the Dwarf Golden Wax Bean; the seed is identical the same in color as that kind. The pods are straight, long, and fleshier than Golden Wax, superior in quality and positively "*Rust Proof,*" which is quite an object with us here in the South, when we often have rainy weather in the spring, which is injurious to most wax beans. The originator

also claims it to be more prolific and hardier than the ordinary Golden Wax Bean.

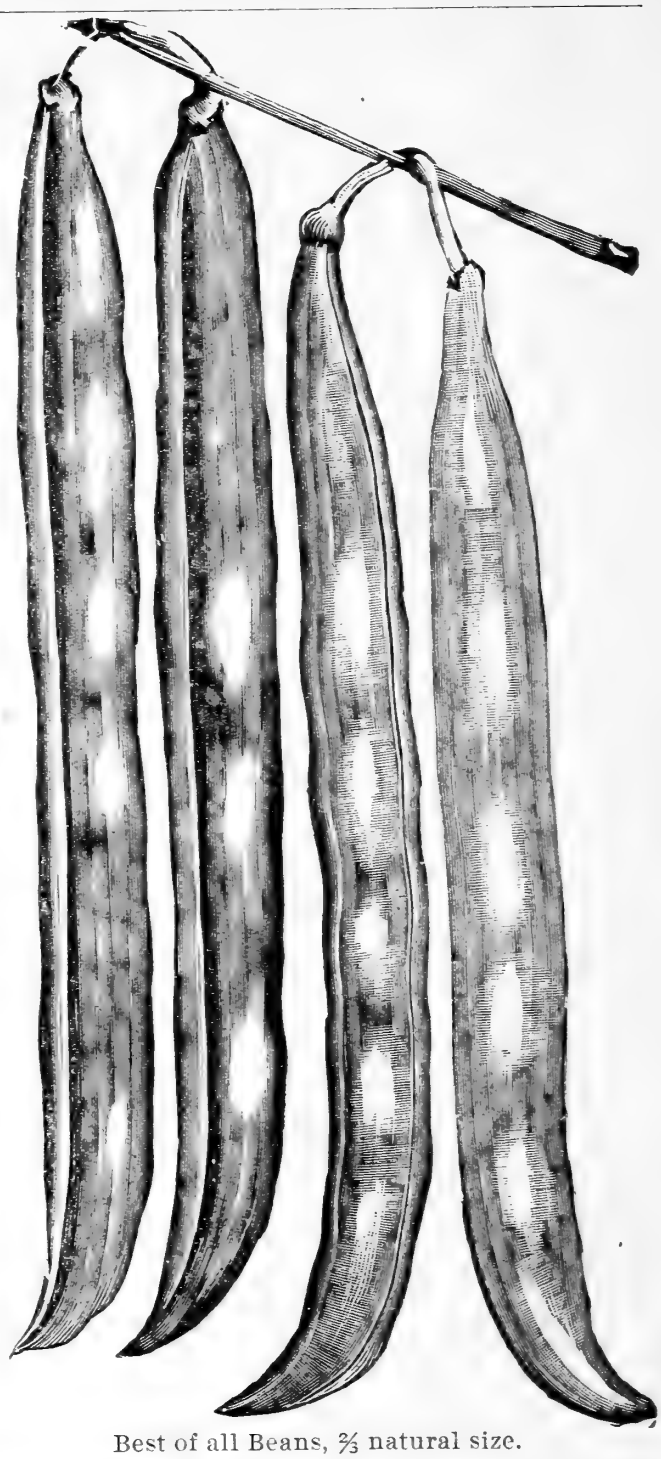
I have had this bean tried the past season and found it so superior to the ordinary Golden Wax, that I have concluded to drop this last named variety from my list.

Detroit or Rust Proof Wax Beans. This splendid wax bean is of recent introduction; it is productive and hardy; pods straight, flat and somewhat broader than the Dwarf Golden Wax. The beans, when well grown, are of a beautiful golden yellow. The originator claims that when tried side by side with the majority of wax beans, it had never "*spotted* or *rusted*" while most of the other varieties were unsalable. He claims it to be the best bean for shipping.

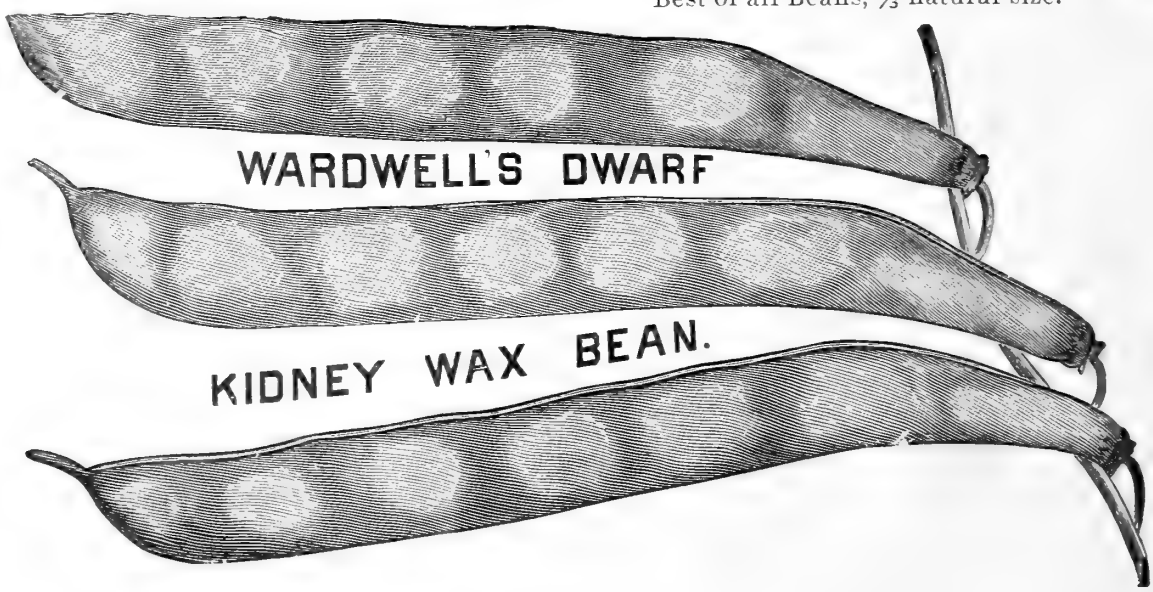
Dwarf Butter Wax Beans. This variety is also sold under the name of "*Bismarck*" and "*Rust Proof Wax.*" It is very early, an excellent bearer, pods similar in shape to the Wardwell's Dwarf Kidney Wax ; they are very brittle and of a fine flavor. Not as liable to rust as other kinds. The seed is of a dark purple color when dried.

Wardwell's Dwarf Kidney Wax. This is the best dwarf Wax Bean in cultivation; it is quite early; the pods are of similar shape as the Golden Wax, but longer; color of a beautiful golden yellow. They are very prolific and hardy, surpassing any other Dwarf Wax Bean that I know of. The color of the bean is somewhat like the Golden Wax, but more kidney-shaped and more spotted with dark purple. It has done best here among the Dwarf Wax Beans. Of all the many new kinds I have tried, I found none to excel it.

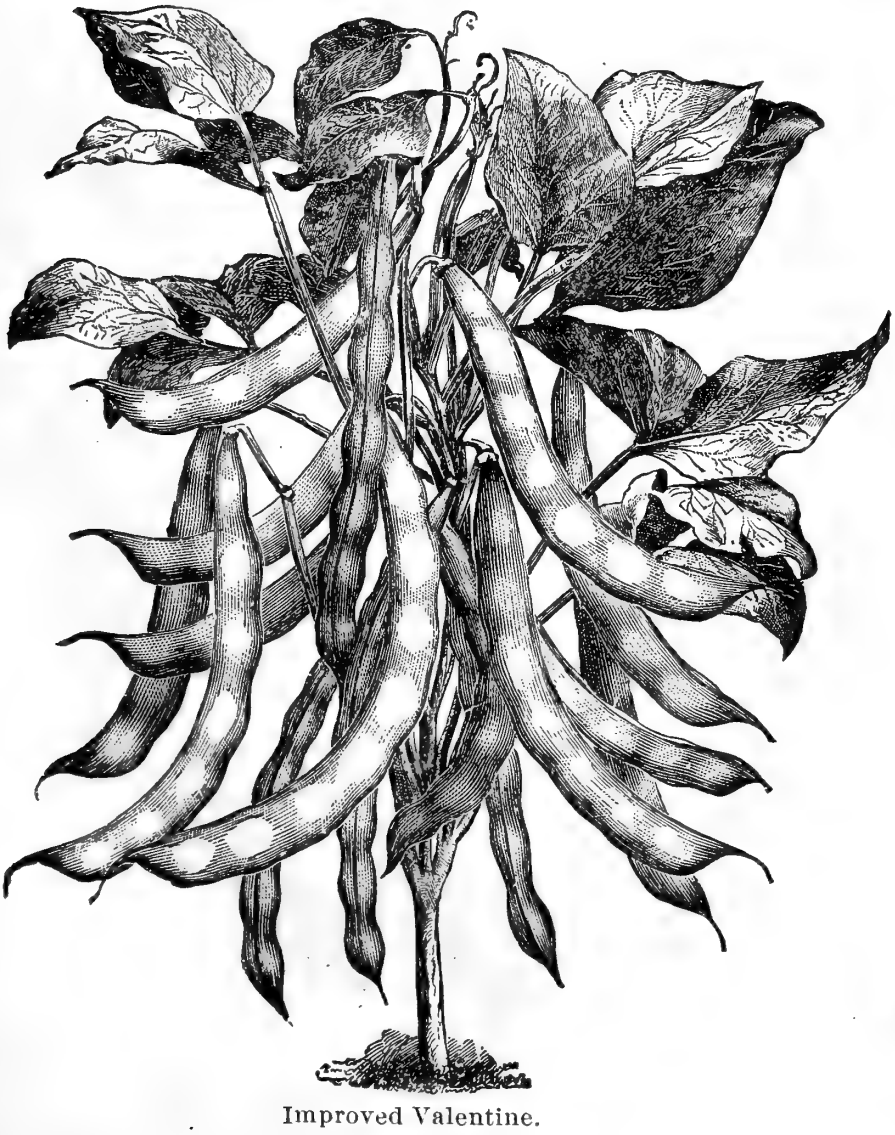
Dwarf Flageolet Wax. A German variety which figures as *Perfection Wax*, also *Scarlet Flageolet Wax* in some catalogues. It is a robust growing sort with large fine yellow pods. For several years I have tried to introduce it amongst the gardeners who still give the *Wardwell's Kidney* the preference.



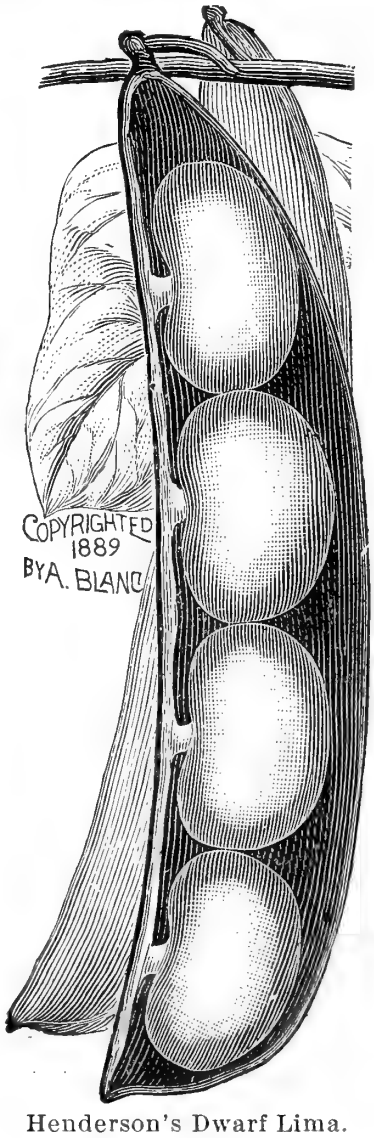
Best of all Beans, ⅔ natural size.



Burpee's Bush Lima.



Improved Valentine.



Henderson's Dwarf Lima.

BEANS.

POLE OR RUNNING.

HARICOTS A RAMES (Fr.), STANGEN-BOHNEN (Ger.), FRIJOL VASTAGO (Sp.).

Large Lima.
Carolina or Sewee.
Southern Willow-leaved Sewee or Butter.
Dutch Case Knife.
Southern Prolific.
Crease Back.
Lazy Wife's.
German Wax or Butter.
Golden Wax Flageolet.
Early Golden Cluster Wax.

Large Lima. A well-known and excellent variety. It is the best shell bean known. Should have rich ground, and plenty room to grow.

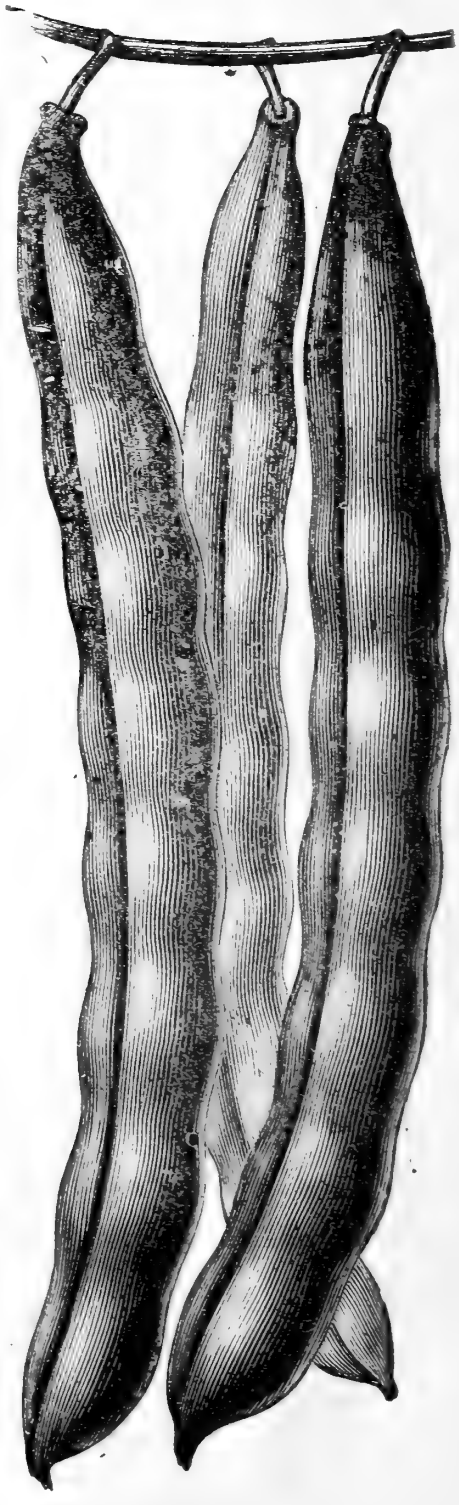
Carolina or Sewee. A variety similar to the Lima; the only difference is, the seeds and pods are smaller. It is generally cultivated, being more productive than the Large Lima.

Southern Willow-leaved Sewee or **Butter.** This is a variety which is grown by the market gardeners about New Orleans; the pods and Beans are the same as the Sewee or Carolina Bean; it is quite distinct in the leaves, being narrow like the willow. It stands the heat better than any other Butter Bean, and is very productive. Originated here, and was introduced by me.

Dutch Case Knife. A very good pole bean; it is early; pods broad and long; somewhat turned toward the end.

Lazy Wife's Pole Beans.

German Wax. This is a fine variety, and has the same good qualities as the German Dwarf Wax. Pods have a waxy appearance; very succulent and tender.



White Crease Back Pole Beans.

Southern Prolific. No variety will continue longer in bearing than this. It stands the heat of the summer better than any other, and is planted to succeed the other kinds. It is a very strong grower; pods about seven inches long and flat; seeds are dark yellow or rather light brown. It is the standard variety for the New Orleans Market, for late spring and summer.

Crease Back. A variety of Pole Beans which has been cultivated in the South for a long time, but has never come into the trade till introduced by me. It is an excellent bean, earlier than the "Southern Prolific." Seeds white; pods round, with a crease in the back, from which the name. It is a good grower, bears abundantly, and, if shipped, will keep better than most other kinds. It sells better in the spring than any other for shipping purpose; and when in season, it can not be surpassed. For early summer, the Southern Prolific is preferable, standing the heat better. Several years ago I received half a bushel from near Mobile, Ala., and all the beans of this variety in the whole country can be traced back to that half bushel. I supplied two growers in Georgia where it was not known that time. I expect to have a full supply this season. There is a light brown bean streaked and mottled with dark brown and black of the same name; but it is not equal to the white variety. In some localities this kind is called "Calico Crease Back." The white seeded variety is also known in some sections by the name of "Fat Horse." This is the original stock; the quality is so fine that no improvement can be made on it.

Golden Wax Flageolet. This variety was introduced a few years ago; it was brought out from Germany. After another year's experience I can confirm all what is claimed for it. It is the best Wax Pole Bean in cultivation, surpasses in length and delicacy

Golden Cluster Wax Pole Beans.

Golden Wax Flageolet Pole Beans.

of flavor all other Wax varieties. It is a very strong grower, which is wanting by most of the Wax Pole kinds. It bears abundantly, is entirely stringless, and does not spot, even by too much rain or other untoward weather. Cannot be too highly recommended. The Golden Wax Pole Bean, brought out a few years ago, I have dropped, as it can stand no comparison with the Golden Wax Flageolet.

Early Golden Cluster Wax Pole. This is the earliest Wax Pole Bean in cultivation; pods from 6 to 8 inches long, produced in clusters. The pods are golden yellow; for shipping they are rather too wide. It has not the same fine appearance of the Flageolet. For family use it cannot be too highly recommended on account of its productiveness and delicious flavor.

Lazy Wife's. A Pole Bean from Pennsylvania. The pods are entirely stringless, 4—5 inches long, and have a fine flavor when cooked. They retain their rich flavor until nearly ripe. The beans are white, and as fine as a shell bean.

ENGLISH BEANS.

Feve de Marais (Fr.), Puff-Bohnen (Ger.), Haba Comun (Sp.).

Broad Windsor. Not so much cultivated here as in some parts of Europe. It is much liked by the people of the Southern part of Europe. Ought to be planted in drills $2\frac{1}{2}$ feet apart, every 6 inches one bean, during November; as, if planted in the spring, they will not produce much.

BEETS.

Betrave (Fr.), Runkelruebe (Ger.), Remolacha (Sp.).

Extra Early or Bassano.
Simon's Early Red Turnip.
Early Blood Turnip.
Edmond's Early Blood Turnip.
Long Blood.
Half Long Blood.
Egyptian Red Turnip.
Long Red Mangel Wurzel.
White French Sugar.
Silver or Swiss Chard.
Eclipse.
Lentz.

CULTURE.

The ground for beets should be rich and well spaded or plowed. Sow in drills twelve to eighteen inches apart, cover the seed about one inch deep. When about a month old, thin them out to four or six inches apart. In this latitude beets are sown from January till the end of April, and from the middle of July till the middle of November; in fact, some market gardeners sow them every month in the year. In the summer and fall it is well to soak the seeds over night and roll in plaster before sowing.

Extra Early, or Bassano, is the earliest variety, but not popular on account of its color, which is almost white when boiled. Earliness is not of such value here, where there are beets sown and brought to the market the whole year round. In the North it is different, where the first crop of beets in the market in spring will bring a better price than the varieties which mature later.

Simon's Early Red Turnip. This is earlier than the Blood Turnip, smooth skin and of light red color; planted a good deal by the market gardeners about New Orleans.

Early Blood Turnip. The most popular variety for market purposes as well as family use. It is of a dark red color and very tender. This is the principal variety planted for shipping. My stock is raised for me from dark selected smooth roots, and cannot be excelled.

Edmond's Early Blood Turnip Beet. A well selected variety; regular in shape; deep blood skin, dark flesh of excellent quality. Small tap root and small top.

Long Blood. It is not quite so tender as the foregoing variety; it is not planted at all

Simon's Early Red Turnip Beet.

Silver Beet or Swiss Chard.

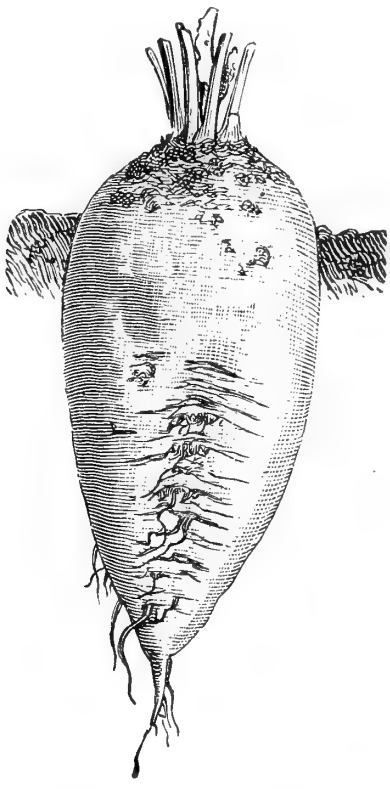
Early Blood Turnip Beet.

for the market, and very little for family use. In the North it is chiefly planted for winter use; here we have Turnip Beets the whole winter from the garden; therefore it has not the same value.

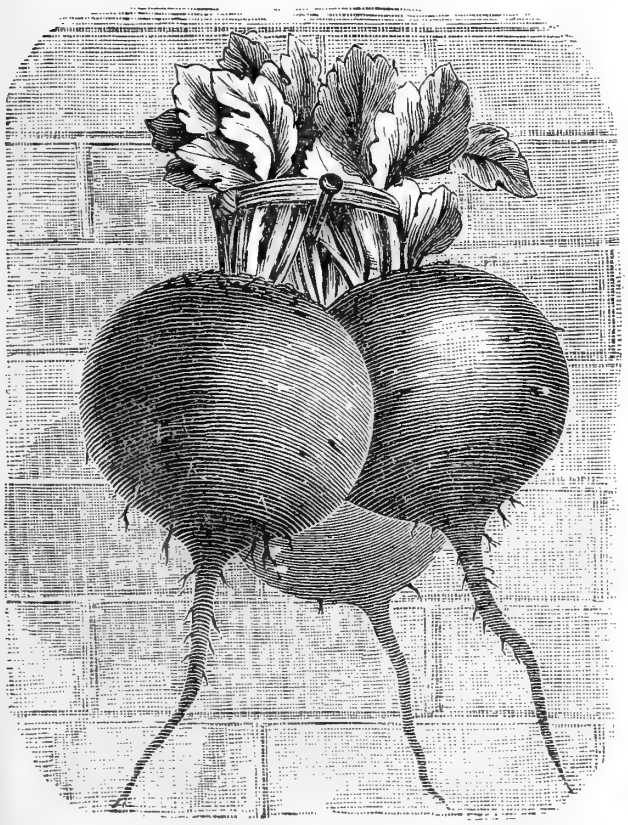
Egyptian Red Turnip Beet.

Half Long Blood. A very dark red variety of a half long shape; a good kind for family use.

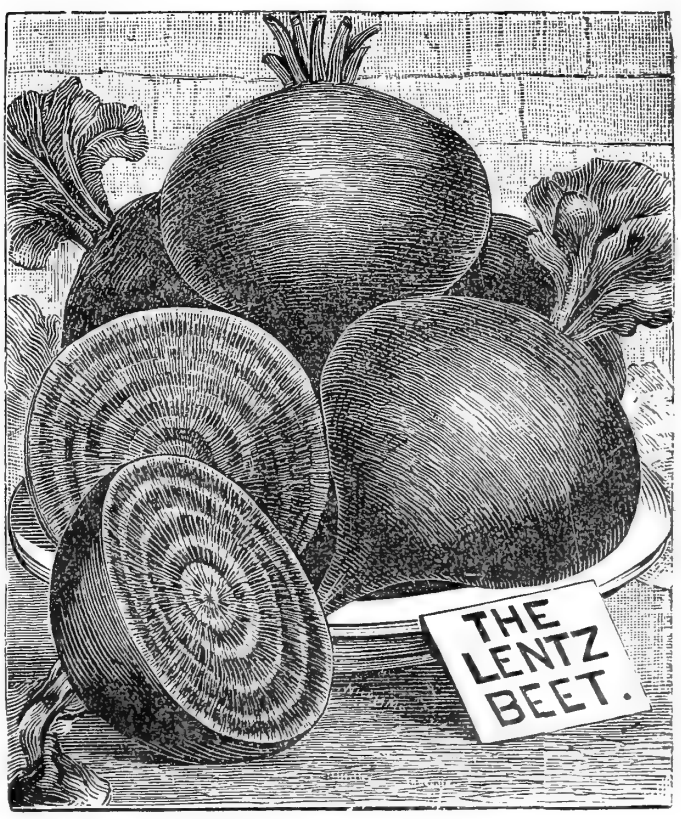
Egyptian Red Turnip. This is a variety sent out by "Benary" some years ago. It is very early, tender, deep red and of Turnip shape. Leaves of this variety are smaller than of others. The seeds are also much smaller. I recommend it and consider it a good acquisition. The seed of this variety



White French Sugar Beet.



Eclipse Beet.



is obtained by me from the original source and is the finest stock offered; increases in popularity every year.

Eclipse. A new Beet from Germany, very regular, of globular shape. It has a small top, is of dark red blood color, sweet and fine grained flesh. It comes as early as the Egyptian.

Long Red Mangel Wurzel. This is raised for stock; it grows to a large size. Here in the South where stock is not stabled during the winter, the raising of root crops is much neglected. Being very profitable for its food it ought to be more cultivated.

White French Sugar, is used the same as the foregoing; not much planted.

Silver Beet, or Swiss Chard. This variety is cultivated for its large succulent leaves, which are used for the same purposes as Spinach. It is very popular in the New Orleans market.

Lentz. This strain of Blood Turnip Beet originated with one of the most prominent market gardeners around Philadelphia. This beet, as selected and grown by him, has had a great reputation in the surroundings of the above place, but the seed has been carefully guarded and kept until recently, when it fell into the hands of a seed grower, from whom I have received my supply. It is fully as early as the Egyptian Beet, but larger and of better quality; it has a fine turnip form with smooth roots, dark blood red flesh, tender and sweet at all times, never becoming tough and stringy, even when old. The cut is an exact representation of its shape.

BORECOLE OR CURLED KALE.

Chou-vert (Fr.) Grüner Kohl (Ger.), Breton (Sp.).

Dwarf German Greens. A vegetable highly esteemed in the Northern part of Europe, but very little cultivated in this country. It requires frost to make it good for the table. Treated the same as cabbage.

BROCCOLI.

Chou Brocoli (Fr.), Spargel-Kohl (Ger.), Broculi (Sp.).

Purple Cape. Resembles the Cauliflower, but not forming such compact heads, and not quite so white, being of greenish cast. We raise such fine Cauliflower here that very little Broccoli is planted.

The Purple Cape is the most desirable variety; cultivated the same as Half Early Cauliflower; further North than New Orleans, where Cauliflower does not succeed, the Broccoli may be substituted, being hardier.

BRUSSELS SPROUTS.

Chou de Bruxelles (Fr.), Rosen or Sprossen Kohl (Ger.), Breton de Bruselas (Sp.).

A vegetable cultivated the same as the Cabbage, but very little known here. The small heads which appear along the upper part of the stalk between the leaves, make a fine dish when well prepared. Should be sown during August and September.

Brussels Sprout.

CABBAGE.

Chou Pomme (Fr.), Kopfkohl (Ger.), Repollo (Sp.).

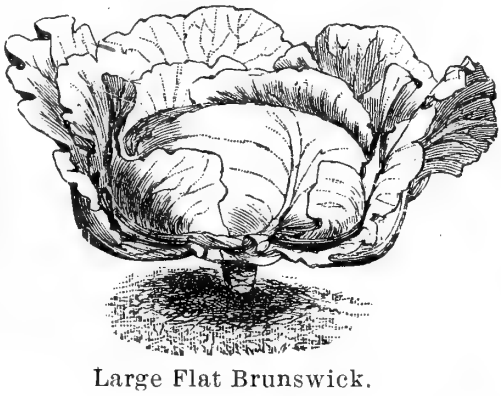
Early York.
Early Large York.
Early Large Oxheart.
Early Winningstadt.
Jersey Wakefield.
Early Flat Dutch.
Early Drumhead.
Large Flat Brunswick.
Improved Early Summer.
Improved Large Late Drumhead.
Frotscher's Superior Late Flat Dutch.
Crescent City Late Flat Dutch.
Stein's Early Flat Dutch.
Red Dutch (for pickling).
Green Globe Savoy.
Early Dwarf Savoy.
Drumhead Savoy.
St. Denis or Chou Bonneuil.

During the past "World's Exposition" I exhibited different vegetables as they were in season. Many visitors will recollect the fine specimens of Cabbage, Beets, Celery, Cauliflower, Lettuce, Cucumbers, etc., they saw there displayed. I received the Prize for **"Frotscher's Flat Dutch Cabbage"** and Early Blood Turnip Beets. Ten heads of Cabbage, devoid of all outside leaves, weighed one hundred and seventy-three pounds. They were raised on Captain Marcy's place, one mile below Algiers.—I did not exhibit them for competition, but merely to show to our Northern visitors what fine vegetables we have here during the winter, when at their homes everything is covered with snow and ice. The Committee of Awards on Vegetables gave me the Prize without any solicitation on my part,—they thinking it well merited. (See inside cover.)

CULTURE.

Cabbage requires a strong, good soil, and should be heavily manured. To raise large Cabbage without good soil and without working the plants well, is an impossibility. Cabbage is sown here almost every month of the year, but the seed for the main crop should be sown from July to September. Some sow earlier, but July is time enough. For a succession, seed can be sown till November. The main crop for Spring should be sown from end of October to end of November, as stated before. The raising of Cabbage for spring has become quite an item of late years; Brunswick should be sown a little earlier than the Early Summer,—the latter kind not till November, but in a frame, so the young plants can be protected against cold weather, which we generally have between December and January. After the middle of January setting out can be commenced with. These early varieties of Cabbage require special fertilizing to have them large. Early varieties are sown during winter and early spring. Cabbage is a very important crop, and one of the best paying for the market gardener. It requires more work and attention than most people are willing to give, to raise cabbage plants during the months of July and August. I have found, by careful observation, that plants raised in August are the surest to head here. The most successful gardeners in raising cabbage plants sow the seeds thinly in seed beds, and water several times during the day; in fact the seed-bed is never allowed to get dry from the sowing of the seed till large enough to transplant. There is no danger, in doing this, of scalding the plants, as many would suppose; but on the contrary, the plants thrive well, and so treated, will be less liable to be attacked by the cabbage flies, as they are too often disturbed during the day. Tobacco stems chopped up and scattered between the plants and in the walks between the beds, are a preventative against the fly.

Early York.



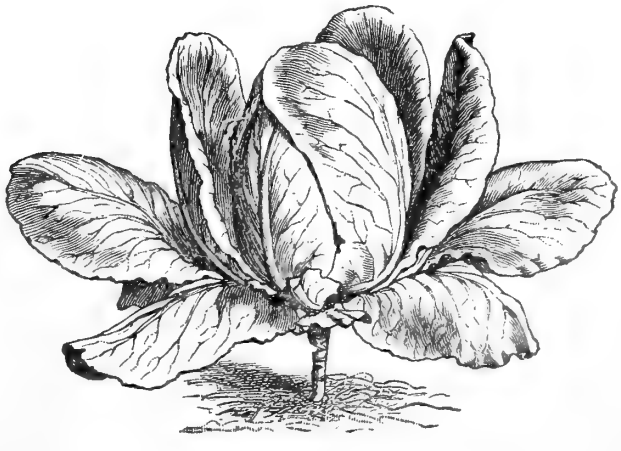
Large Flat Brunswick.

Early Dwarf Savoy.

Early Winningstadt.

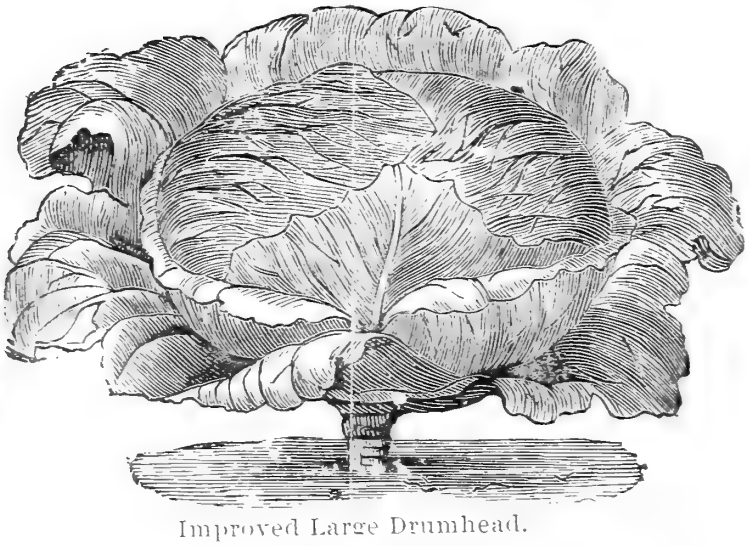
St. Denis, or Chou Bonneuil.

Drumhead Savoy.



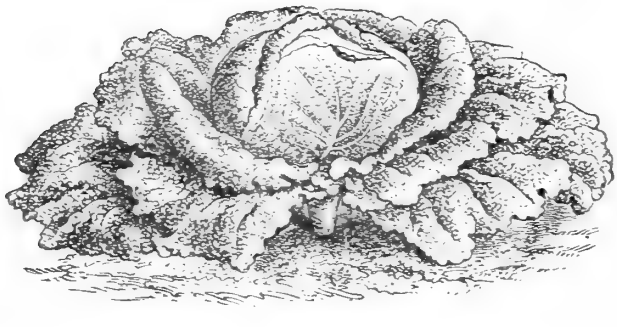
Large York.

These three heads of Cabbage were grown by M. POPOVICH, at TUNISBURG, La.



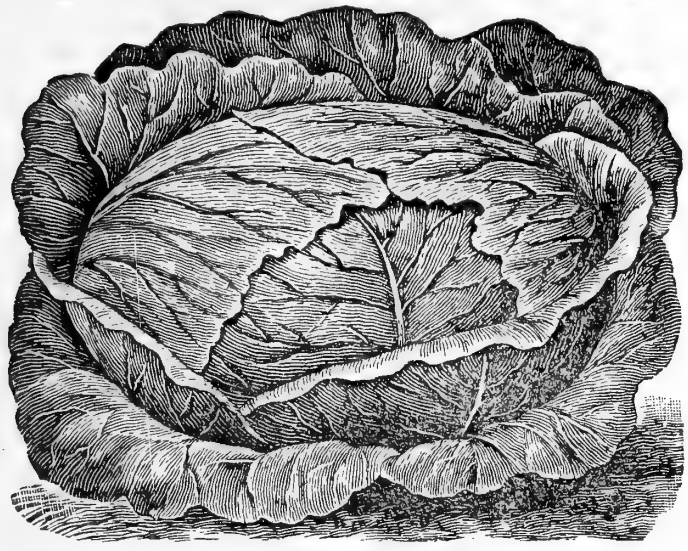
Improved Large Drumhead.

Early Large Oxheart.



Green Globe Savoy.

Early Flat Dutch.



Crescent City Flat Dutch.

Improved Early Summer.

Early Drumhead.

Early York. This is an early variety, but very little grown here except for family use. As we have cabbage heading up almost the whole year, it has not the same value as in Northern climates, where the first cabbage in spring brings a good price.

Large York. About two or three weeks later than the above, forming hard heads; not grown for the market. Recommended for family use.

Early Large Oxheart. An excellent variety, which is later than the Large York, and well adapted for sowing in fall or early spring.

Early Winningstadt. This is a very fine solid-heading variety; pointed and of good size, of the same season as the Oxheart. It is very good for family use. It does not suit the market, as no pointed cabbage can be sold to any advantage in the New Orleans market.

Jersey Wakefield. Very popular in the North; but little planted here. It is of medium size and heads up well.

Early Flat Dutch. An intermediate kind between the early pointed and late varieties. It is not, on an average, as heavy as the Oxheart or Winningstadt; but, if raised for the market, more salable on account of being flat. Very good variety for family use.

Early Drumhead. A similar variety to the above; a little earlier, and not making as many leaves, it can be planted close. A good early spring cabbage.

Large Flat Brunswick. This is a late German variety, introduced by me over twenty-five years ago. It is an excellent kind, and when well headed up, the shape of it is a true type of a Premium Flat Dutch Cabbage. It requires very rich ground if sown for winter crop, and should be sown early, as it is a little more susceptible of frost than the Superior Flat Dutch. It is well adapted for shipping, being very hard, and does not wilt so quick as others. At Frenier, on the Ills. Cent. R. R., this is the kind principally planted, and is preferred over all other varieties. The people living there plant nothing else but cabbage, and have tried nearly all highly recommended varieties, and this is their choice. At that place the seeds are sown in October and November. The bulk of the cabbage raised there is shipped North in April and May, and is the finest which comes to the Chicago market.

Improved Early Summer. This cabbage is of recent introduction. It is not quite so large as the Brunswick; for fall it can be sown in August; for spring, in November and as late as January. It heads up very uniform and does not produce many outside leaves. It is hardier than the Brunswick, and stands the cold and heat better. The seed I offer is the best strain cultivated, and can be planted closer together than the late varieties—say about 8000 to the acre. The finest crop of this variety (one hundred and fifty thousand heads of cabbage) I ever saw, was raised a few years ago near the city. The grower could commence on one end of the row to cut, and continue to the end, all well headed. They averaged about 7 pounds.

Improved Large Late Drumhead. Fine large variety; should be sown early in the fall for winter, or during December and January for late spring use; it will stand more cold weather than the Brunswick.

Superior Late Flat Dutch. This is the most popular variety for winter cabbage, and cultivated by almost every gardener who plants for the New Orleans market. My stock is of superior quality, and I venture to say that seventy-five per cent. of all cabbage

sold in the New Orleans market are of seeds which have been obtained from my store. During winter and spring, specimens which are brought as samples to my establishment, weighing from fifteen to twenty-five pounds, can frequently be seen. In regard to the time of planting, see remarks under head of "Cabbage" in the directions for planting for July. I have tried seed of the Flat Dutch from different growers, but have found none yet to equal the stock I have been selling for years, and which is raised for me by contract.

Crescent City Flat Dutch. This variety I have been selling for the past few years under the name of No. 1. It is the most uniform heading cabbage suitable for this section; heads are large and solid. It is about two weeks earlier than my Superior Late Flat Dutch. Recommend same highly.

Stein's Early Flat Dutch Cabbage. This is one of the earliest cabbages for its size. The demand for the seed has increased almost double since last year. It is a sure header, very regular and well adapted for shipping. It is planted exclusive of all other kinds, by some of the largest cabbage growers in this vicinity.

Red Dutch. Mostly used for pickling or salads. Very little cultivated.

Green Globe Savoy. Medium sized heads, not very hard, but all the leaves can be used. This and the following varieties are of fine flavor, and preferred by many over the other kinds.

Early Dwarf Savoy. Head rather small but solid; leaves very curled and succulent; of a dark green color. Very fine for family garden.

Drumhead Savoy. Leaves are wrinkled, but not quite so much as the two foregoing kinds. It grows to a good size with large roundish heads.

St. Denis, or Chou Bonneuil. This was, at one time, one of the most popular varieties grown for this market, but during the past few years has not done so well as formerly, and is, therefore, planted very little now. It does better for spring than for fall. Should be sown in November.

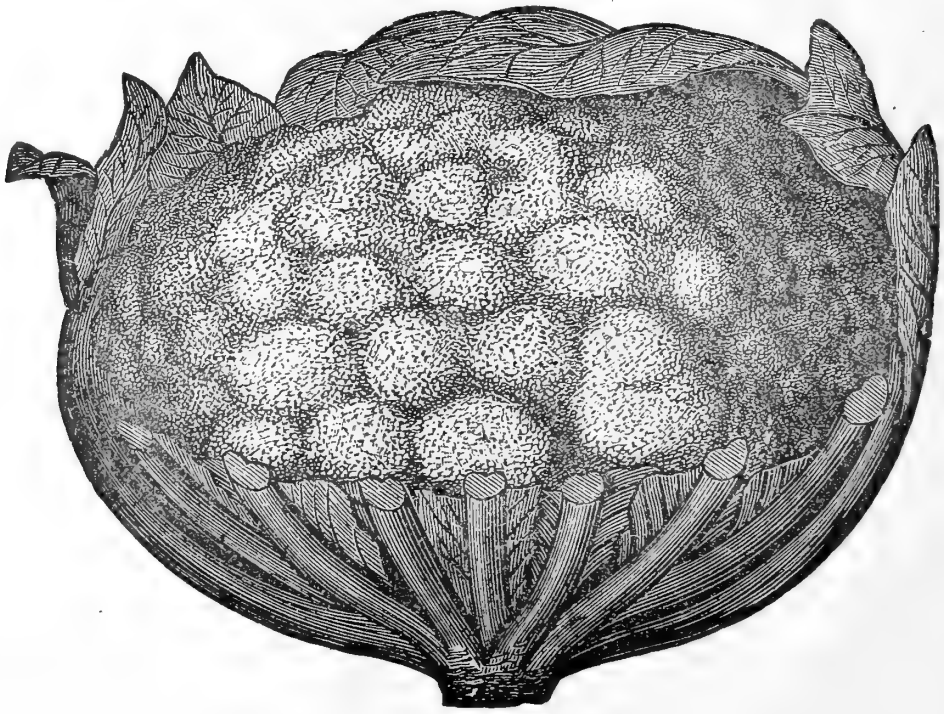
Succession. This cabbage is of recent introduction; it resembles the German Brunswick; but not quite so large, it is of same season. It heads up very regularly and uniform; should be planted same time as the Early Summer and Brunswick for a Spring crop.

CAULIFLOWER.

Choufleur (Fr.), Blumenkohl (Ger.), Coliflor (Sp.).

Extra Early Paris.
Half Early Paris.
Early Erfurt.
Le Normands (short-stemmed).
Early Italian Giant.
Late Italian Giant.
Large Algiers.
Early Snowball.

This is one of the finest vegetables grown, and succeeds well in the vicinity of New Orleans. Large quantities are raised on the sea coast in the neighborhood of Barataria Bay. The two Italian varieties are of excellent quality, growing to a large size, and are considered hardier than the German and French kinds. I have had specimens brought to my store, raised from seed obtained from me, weighing sixteen pounds. The ground for planting Cauliflower



Early Italian Giant Cauliflower.

should be very rich. They thrive best in rich, sandy soil, and require plenty of moisture during the formation of the head. The Italian varieties should be sown from April till July; the latter month and June is the best time to sow the Early Giant. During August, September and October, the Le Normands, Half Early Paris and Erfurt can be sown. The Half Early Paris is very popular, but the other varieties are just as good. For spring crop the Italian kinds do not answer, but the early French and German varieties can be sown at the end of December and during January, in a bed protected from frost, and may be transplanted into the open ground during February and as late as March. If we have a favorable season, and not too dry, they will be very fine; but if the heat sets in soon, the flowers will not attain the same size as those obtained from seeds sown in fall, and which head during December and January.

Extra Early Paris. The earliest variety; heads small, very tender.

Half Early Paris. The most popular in the New Orleans market. Heads of good size, white and compact.

Early Erfurt. This variety is of more dwarfish growth than the two former. Heads white and of good size. Heads with certainty.

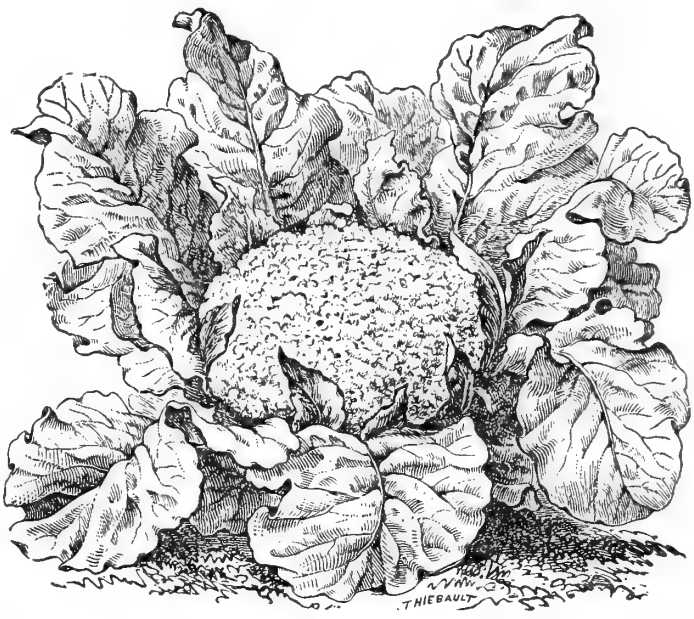
Le Normands is a French variety, and largely cultivated here. It stands more dry weather than the other varieties, and has large and pure white heads. Not so popular as the Half Early Paris in this market, but there is no good reason why it should not be, as it is an excellent kind in every respect; stands the heat better than any other.

Large Algiers. A French variety of the same season as the Le Normands, but a surer producer. It is one of the best kinds, and has taken the place of other second early varietis since it has been introduced.

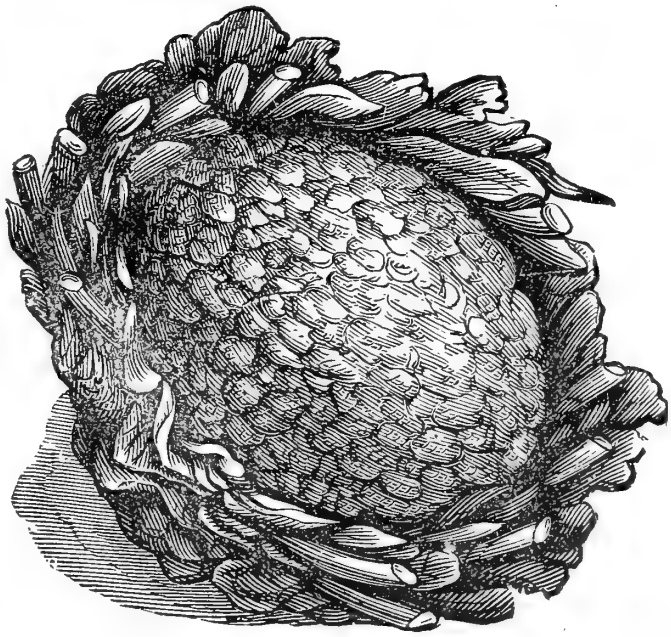
Early Italian Giant. Very large fine sort, not quite so late as the Late Italian, and almost as large. The heads are quite large, white and compact, and of delicious flavor. I recommend it to all who have not tried it. When sown at the proper season, it will head with certainty, and will not fail to give satisfaction.

Late Italian Giant. This is the largest of all the Cauliflowers. It is grown to a considerable extent in the neighborhood of New Orleans. It is very large and compact; should not be sown later than June, as it takes from seven to nine months before it heads.

Early Snowball. An extra early dwarf variety similar to the *Dwarf* Erfurt; good to sow for last in spring. It will produce flowers as early as the Extra Early Paris, but larger.



Le Normands short-stemmed Cauliflower.



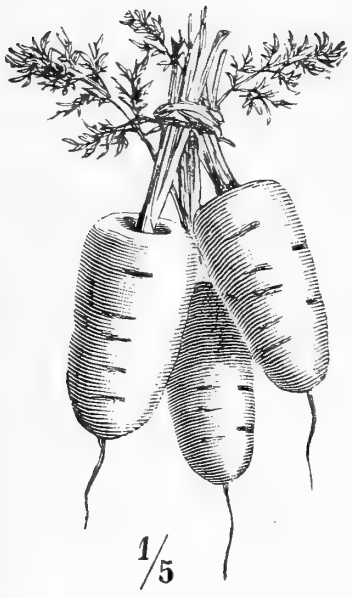
Large Algiers.

CARROT.

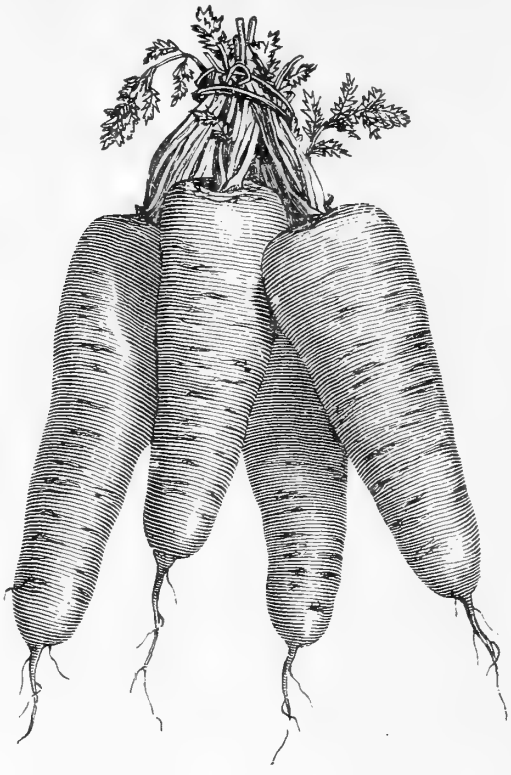
Carotte (Fr.), Moehre or Gelbe Rübe (Ger.), Zanahoria (Sp.).

Early Scarlet Horn.
Half Long Scarlet French.
Improved Long Orange.
Long Red without core.
St. Valerie.
Half Long Luc.
Danver's Intermediate.
Chantenay Half Long Scarlet.

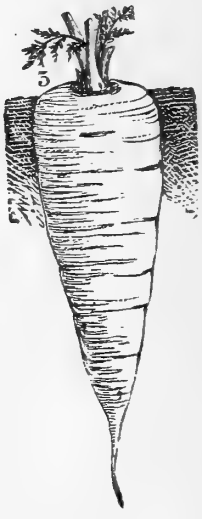
Requires a sandy loam, well manured the previous year, and deeply spaded up. Should be sown in drills ten to twelve inches apart, so the plants can be worked after they are up. Gardeners here generally sow them broad-cast, and often the roots are small from being crowded too much together.



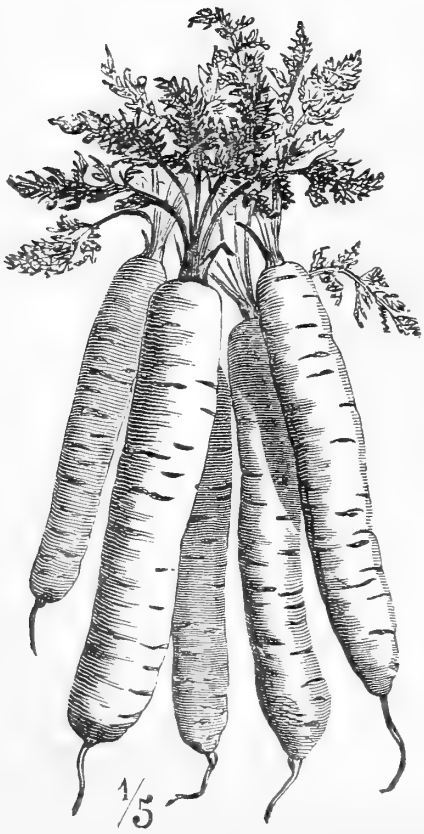
Early Scarlet Horn Carrot.



Half Long Luc Carrot.

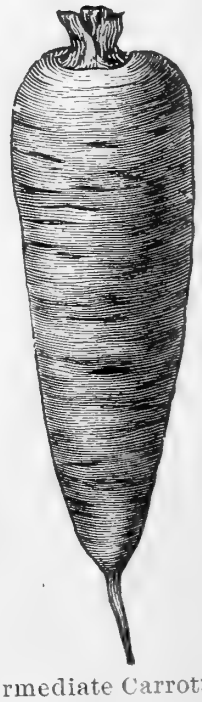


Half Long French Scarlet Carrot.



Long Red Carrot without core.

St. Valerie Carrot.



Danver's Intermediate Carrot.

Early Scarlet Horn. A short, stump-rooted variety of medium size, very early and of fine flavor. Not cultivated for the market.

Half Long French Scarlet. This is the most popular variety, and extensively grown for the market as well as for family use. It is a little later than the Early Horn, but much larger; bright scarlet in color, and of fine flavor.

Half Long Luc. This is a variety from France. It is as early as any previously mentioned, but stump-rooted and larger. It is very smooth and of a fine color.

Improved Long Orange. This is an old variety; roots long and of deep orange color. It is not much cultivated in this section, and the flavor is not so fine as that of the two preceding kinds. Valuable for field culture.

Long Red, without core. A variety from France, which is of cylindrical shape, very smooth, bright scarlet color, and of fine flavor; has no heart or core. It is not quite so early as the Half Long, but more productive. Consider it a first-class variety for the table, and one that will come into general cultivation when better known.

St. Valerie. This is also a French variety, bright red in color; a little larger and longer than the Half Long French, and stronger in the leaves. It is one of the finest carrots, and will in the course of time take the place of the Half Long. It is very smooth.

Danver's. An intermediate American kind of recent introduction. It is of a bright orange color; very smooth; symmetrically formed; somewhat stump-rooted like the Half Long Luc. It will produce more in weight to the acre than any other Half Long variety.

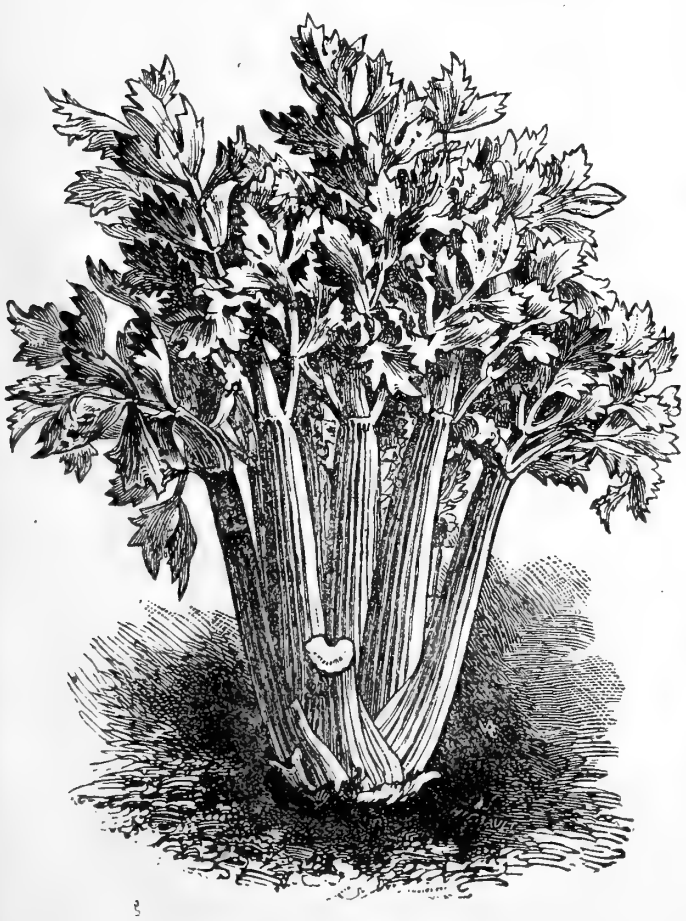
Chantenay Half Long Carrot. A half long scarlet variety; similar to the Half Long Luc, but thicker.

CELERY.

Celeri (Fr.), Sellerie (Ger.), Apio (Sp.).

Large White Solid.
Perfection Heartwell.
Turnip-Rooted.
Dwarf Large Ribbed.
Golden Self Blanching.
Giant Pascal.
Cutting or Soup.

Sow in May and June for early transplanting, and in August and September for a later crop. Sow thinly and shade during the hot months. When the plants are six inches high, transplant into trenches about four inches deep, nine wide and two and a half feet apart, made very rich by digging in rotten manure. Plants should be from 6 to 8 inches apart. When planted out during the hot months, the trenches require to be shaded, which is generally done by spreading cotton cloth over them; latanniers will answer the same purpose. Celery requires plenty of moisture, and watering with soapsuds, or liquid manure, will benefit the



Giant Pascal Celery.

Dwarf, Large Ribbed Celery.

plants a great deal. When tall enough, it should be earthed up to blanch to make it fit for the table.

Large White Solid. This variety used to be planted exclusively, but since the introduction of half dwarf and dwarf kinds, it has been dropped, more so by market gardeners. It is crisp, but not as fine flavored as the following kinds.

Perfection Heartwell. This variety is in size between the Large White Solid and Dwarf kinds; it is of excellent quality, very thick, and when blanched the heart is of a beautiful golden yellow color; preferable to the White Solid, and one of the best kinds ever introduced.

Dwarf Large Ribbed. This kind was brought here several years ago from France. It is short, but very thick ribbed, solid and of fine flavor. The best dwarf variety for this section.

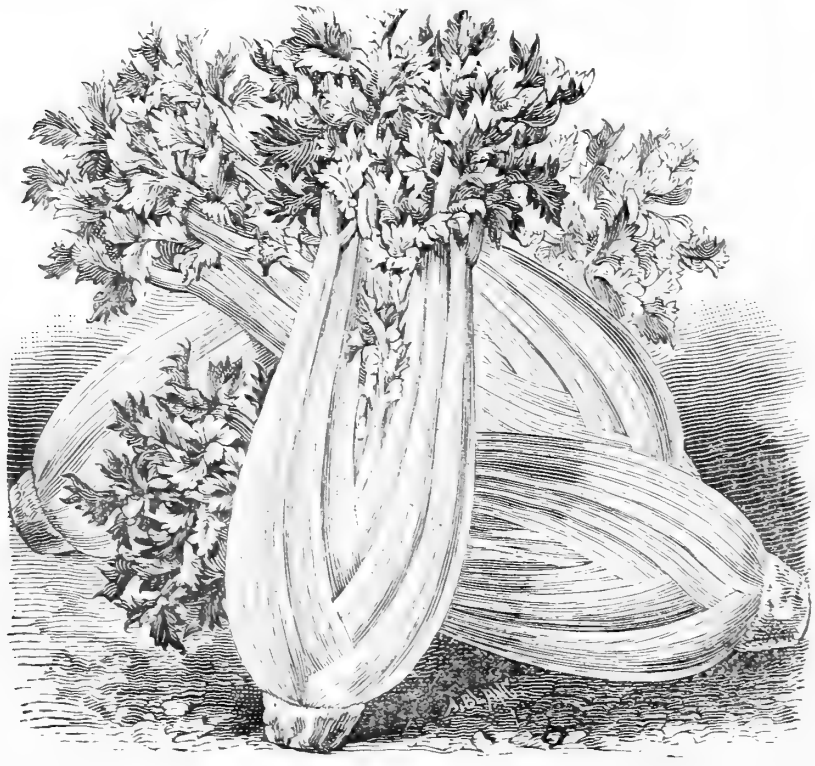
Golden Self Blanching. A French variety, of the best quality. The heart is solid, very tender, of a beautiful yellow color; the ribs brittle and of delicious flavor. Cannot be too highly recommended.

Giant Pascal. This is a selection from the New Golden Self-Blanching Celery; it partakes of the best qualities of that variety, but is much larger and a better keeper. It is of a fine nutty flavor; grows about two feet high; the stalks are very broad, thick and crisp, entirely stringless; the width and thickness of the stalks are distinctive features of this kind. It bleaches with but slight "earthing up" and very quickly, usually in five or six days.

Celeriac or Turnip-Rooted Celery, is very popular in some parts of Europe, but hardly cultivated here. It should be sown in the fall of the year, and transplanted six

Celeriac or Turnip-Rooted Celery.

Large White Solid Celery.



Perfection Heartwell Celery.

inches apart. When the roots have obtained a good size, they are boiled, scraped off, sliced and dressed with vinegar, etc., as a salad.

Celery for Soup. This is sown in the spring of the year, broad-cast, to be used for seasoning, the same as Parsley.

CHERVIL.

Cerfeuil (Fr.), Kerbelkraut (Ger.).

An aromatic plant, used a good deal for seasoning, especially in oyster soup, and is often cut between Lettuce when served as a salad. In the North this vegetable is very little known, but in this section there is hardly a garden where it is not found. Sow broad-cast during fall for winter and spring, and in January and February for summer use.

COLLARDS.

A kind of cabbage which does not head, but the leaves are used the same as other cabbage. Not so popular as in former years, and very little planted in this vicinity.

CORN SALAD.

Mache, Doucet (Fr.), Acker Salat (Ger.), Valeriana (Sp.).

Broad-leaved Corn Salad is the variety generally cultivated. It is used as a salad during the winter and early spring months. Should be sown broad-cast or in drills nine inches apart during fall and winter.

CORN.

INDIAN.

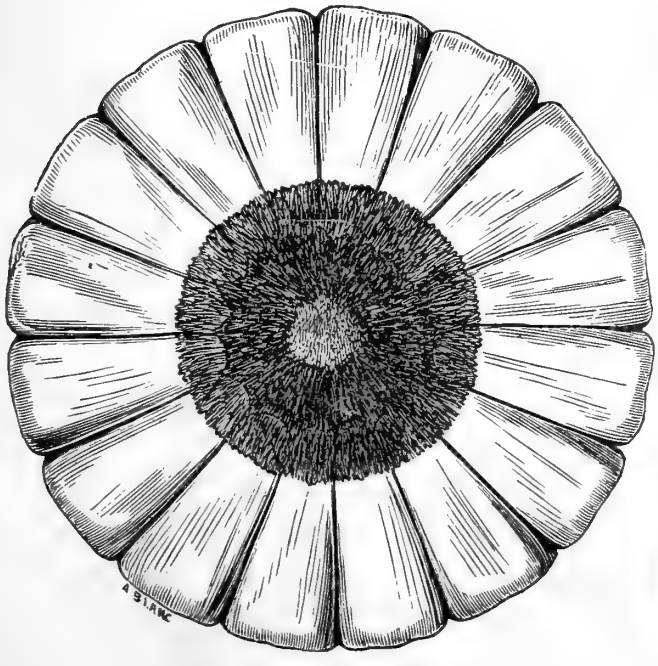
Mais (Fr.), Welschkorn (Ger.), Maiz (Sp.).

Extra Early Dwarf Sugar.
Adam's Extra Early.
Early Sugar or Sweet.
Stowel's Evergreen Sugar.
Golden Dent Gourd Seed.
Early Yellow Canada.
Large White Flint.
Blunt's Prolific Field.
Improved Leaming.
Golden Beauty.
Champion White Pearl.
Mosby's Prolific.
Hickory King.

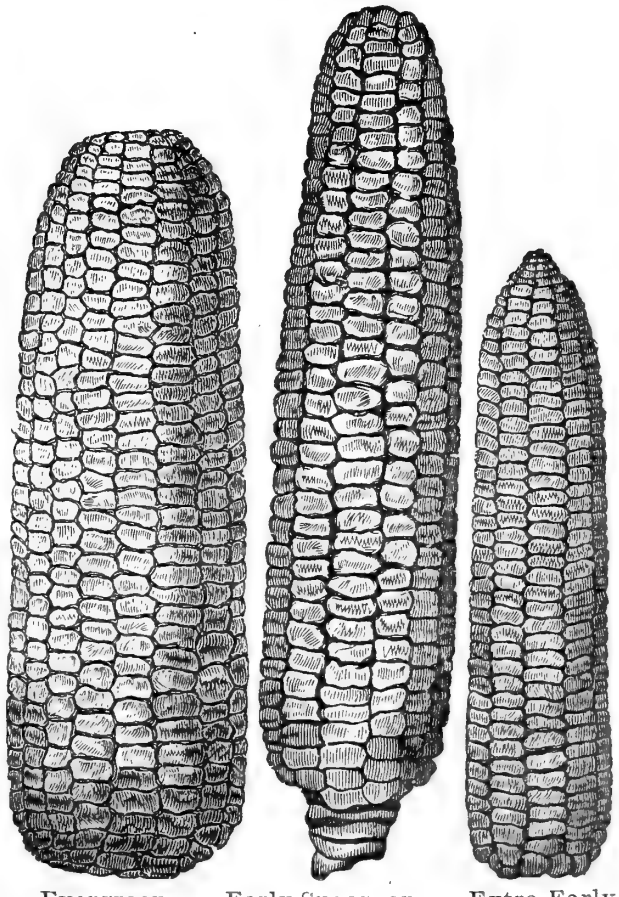
Plant in hills about three feet apart, drop four to five seeds and thin out to two or three. Where the ground is strong the Adam's Extra Early and Crosby's Sugar can be planted in hills two and a half feet apart, as these two varieties are more dwarfish than the other kinds. Plant for a succession from February to June.

Extra Early, or Crosby's Dwarf Sugar. This is a very early variety and of excellent quality. Ears small, but very tender. It is not so extensively planted as it deserves to be.

Adam's Extra Early, the most popular variety with market gardeners for first



Champion White Pearl Corn.



Evergreen Sugar Corn. Early Sugar, or New England Corn. Extra Early Sugar Corn.

planting. It has no fine table qualities, but as it grows to a good size, and is matured in about forty days from time of planting, it meets with ready sale in the market, and for these reasons gardeners prefer it.

Early Sugar, or New England. A long eight-rowed variety, which succeeds the Early sorts. Desirable kind.

Stowel's Evergreen Sugar. This is the best of all Sugar Corn. It is an early Corn, but the ears are of large size, and are well filled. It remains green longer than any other variety, and is quite productive. The cultivation of this excellent cereal, as well as all other Sugar Corn, is much neglected, yet why people will plant common field-corn for table use, considering size instead of quality, I can not understand.

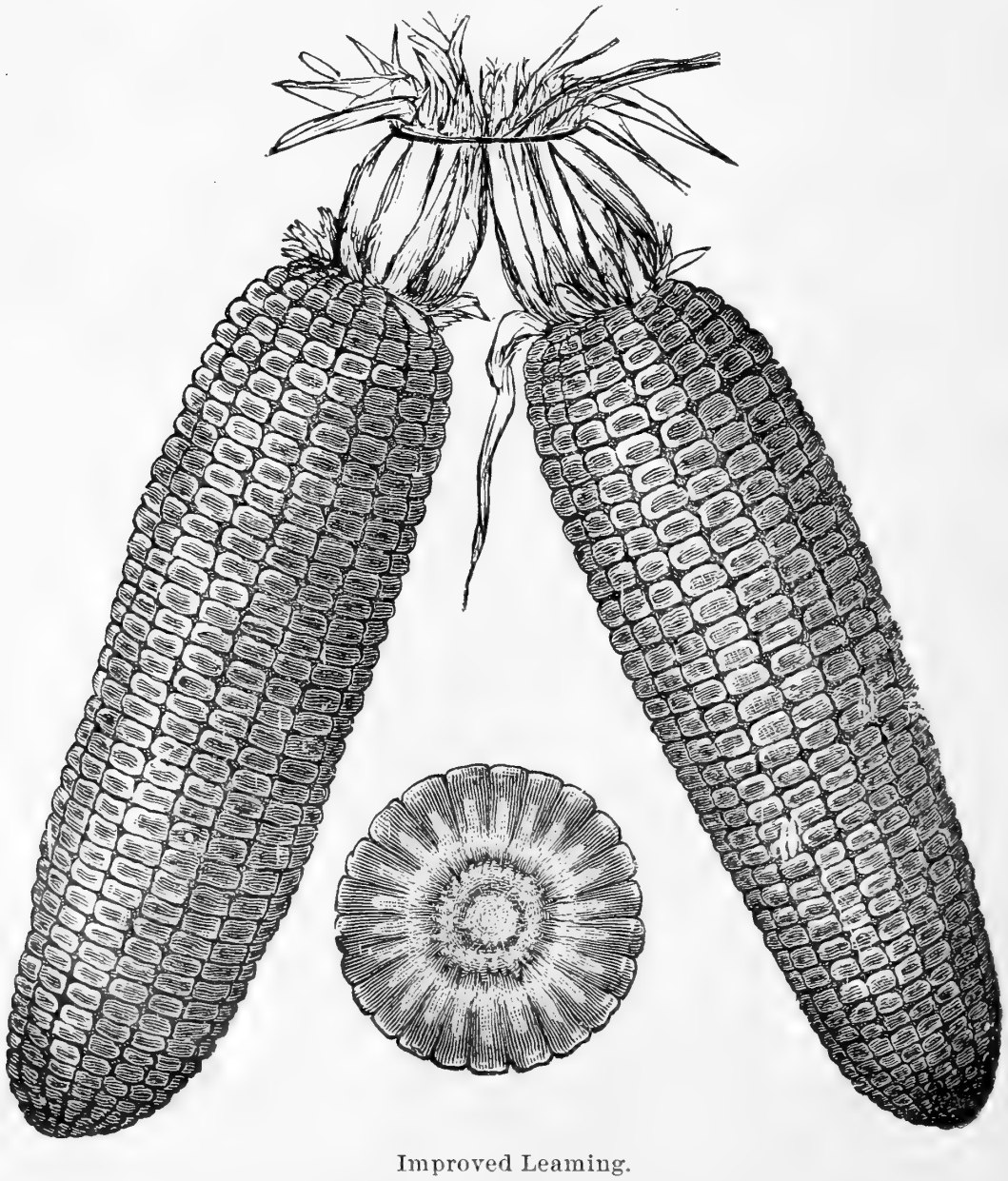
Golden Dent Gourd Seed. A field variety which is very productive at the North. It makes a very fine Corn South, but has to be planted here several years in succession before it attains perfection, as during the first year the ears are not well covered by the husk, which is the case with all Northern varieties. When selected and planted here for a few years, it becomes acclimated and makes an excellent Corn, with large, fine ears, grain deep and cob of medium size.

Early Yellow Canada. A long eight-rowed variety. It is very early, and is planted in both the field and garden. It does well here.

Large White Flint. A very popular variety with gardeners and amateurs. It is planted here for table use principally, but like the Golden Dent, makes an excellent kind for field culture after it has been planted here for two or three years.

Blunt's Prolific Field Corn. This is a very excellent variety, either for the field or for the table. It is very prolific, producing from four to six ears of corn. They are of medium size, but well filled and heavy. It is second early. This variety has done better than any other, and being of Southern origin, it seems to be better adapted to our climate. I recommend it as an early yielding Corn for field culture.

Improved Leaming. An extra early field variety. It is not hard and flinty, but sweet and nutritious, making excellent feed and fine

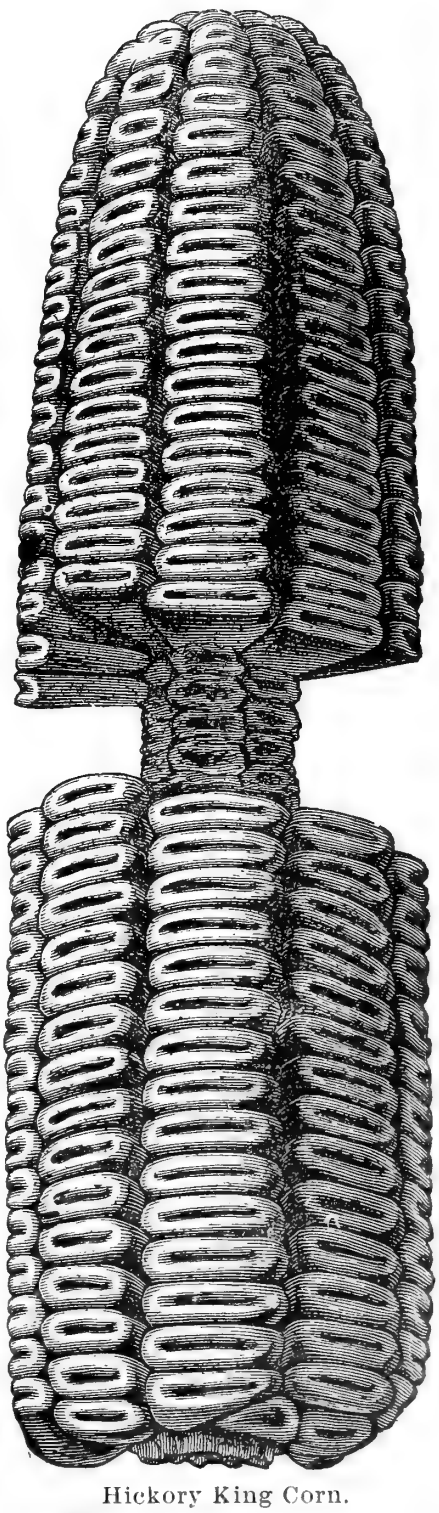


Improved Leaming.

meal. The ears are large and handsome, with deep large grains, deep orange color and small red cob. It is very productive. The shucks cover the ear better than any Northern or Western variety I have ever tried. It is adapted to a variety of soils, and produces well on heavy or light soil ; it has shown itself as very reliable.

Golden Beauty. This is the handsomest of all yellow corn; the ears are of a perfect shape, long, and filled out to the end of the cob. The grains are not of a flinty

Golden Beauty Corn.



Hickory King Corn.

type, neither are they so soft as to be greatly shrivelled, as in the Golden Dent. Golden Beauty matures early, ripening in eighty days from planting, and surpasses all in size and beauty of grain.

Champion White Pearl. This is a very handsome white corn. The grain is pure white, exceedingly heavy and long, two of which will span the cob, which is small. Being medium in size of stalk it can be planted much thicker than a large Corn, and at the same time bear a full sized ear. The originator has established in Champion White Pearl Corn a short, thick stalk, with the ear growing low upon it, which is an advantage in stormy weather. Planted here a good deal for the market.

Mosby's Prolific Corn. This is a Southern Corn, and is recommended for general crop. The originator of this variety says: "This corn is a cross between two widely different varieties. It is purely white; small cob, deep, full grain, neither too hard nor too soft. It will stand crowding in the drill as close again as any other kind. Ears of medium size, but long. It stands the drought better than ordinary corn." Should be planted early.

Hickory King. This Field Corn is of recent introduction. It has proven itself all that was claimed for it. It is the Largest Grained and Smallest Cobbed Pure White Dent Corn in the World. It is very early. The ears are from seven to nine inches in length, and are generally borne from three to five to a stalk, making it very productive. The ears are well covered by the shucks; a great consideration in Field Corn planted in the South.

CRESS.

Cresson (Fr.), Kresse (Ger.), Berro (Sp.).

Used for salad during winter and spring. Sow broad-cast or in drills six inches apart.

Curled or Pepper Grass. Not much used in this section.

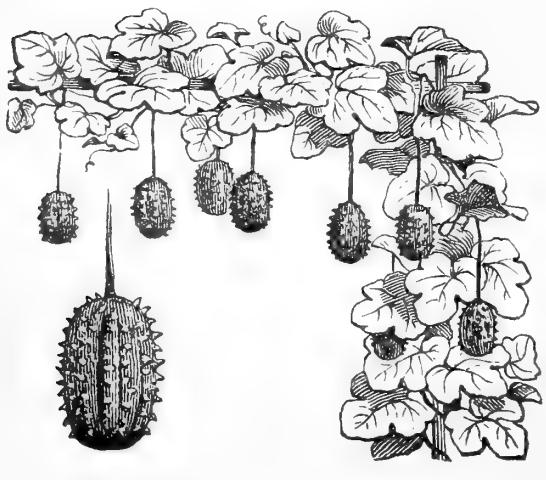
Broad-Leaved. This variety is extensively cultivated for the market. It is sown from early fall to late spring. The leaves resemble Water Cress, a variety which does not well succeed here. Is considered a very wholesome dish.

CUCUMBER.

Concombre (Fr.), Gurke (Ger.), Pepino (Sp.).

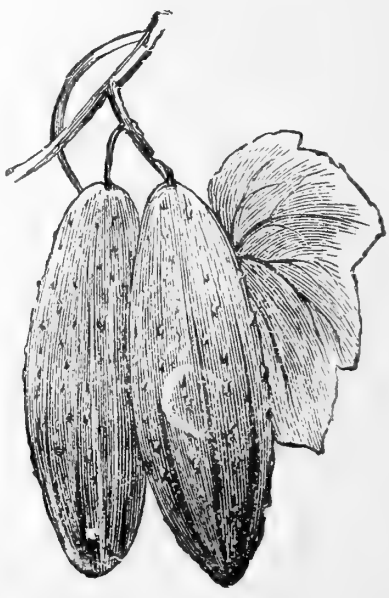
Improved Early White Spine.
Early Frame.
Long Green Turkey.
Early Cluster.
New Orleans Market.
Gherkin, or Burr (for pickling).

Cucumbers need a rich soil. Plant in hills from three to four feet apart; the hills should be made rich with well decomposed manure, and eight to ten seeds should be planted in each hill, and covered about one-half inch deep; when well up, thin out to four plants in the hill till the vines meet. When the spring is dry the plants have to be watered, else they do not keep in bearing long. They can be planted from March till July. A great many cucumbers are planted here in February, or even sooner, and are protected by small boxes with a pane of glass on top. These boxes are removed during the day, and put back in the evening. When days are cloudy and cold, the plants are kept covered.



West India Gherkin.

Early Frame.



Early Cluster.

Improved Early White Spine. This is a popular variety. It is of medium size, light green, covered with white spines, and turns white when ripe. A good kind for shipping. It is used by market gardeners for forcing as well as outdoor culture. It is very productive.

New Orleans Market. This is a variety selected from an imported forcing cucumber introduced by me. It is good for forcing or open ground; very productive, keeps its green color, and has few vines. This kind cannot be excelled for shipping, as it produces very perfect cucumbers and but few culls; the largest growers of cucumbers for shipping about here plant none but this variety. It is quite different from the Long White Spine offered by some.

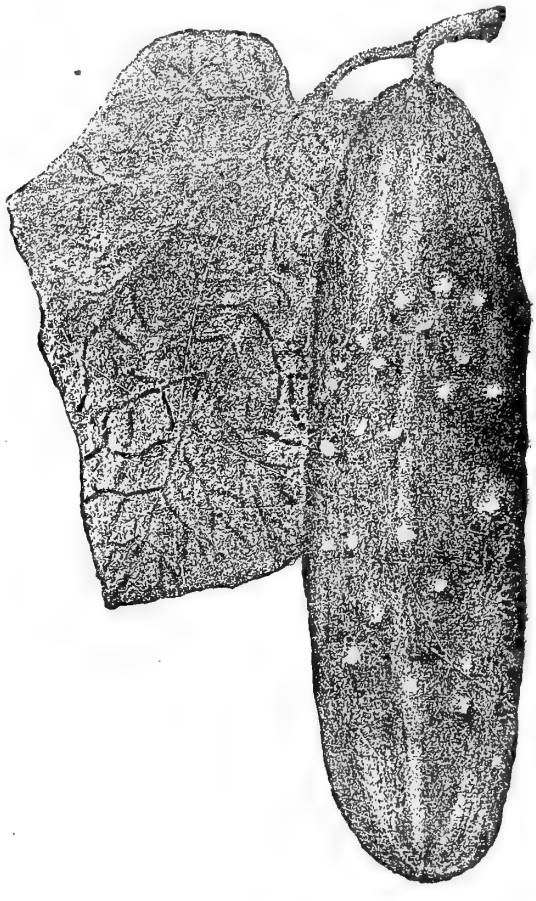
Early Frame. Another early variety, but not so popular as the foregoing kind. It is deep green in color, but turns yellow very quickly; therefore gardeners do not plant it much.

Long Green Turkey. A long variety attaining a length of from fifteen to eighteen inches when well grown. Very fine and productive.

Early Cluster. Early, short and prickly; it bears in clusters.

West India Gherkin. This is an oval variety, small in size. It is used for pickling when young and tender. When grown to its full size it can be stewed with meat. In fact, this is the only use made of it about New Orleans.

Improved Early White Spine.



New Orleans Market.

EGG-PLANT.

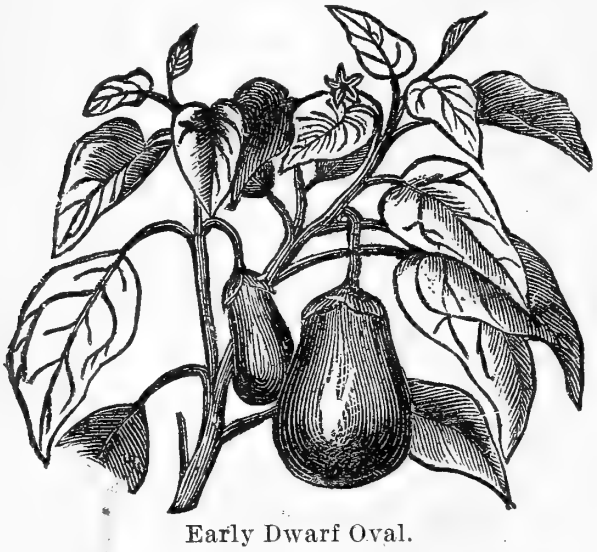
AUBERGINE (Fr.), EIERPFLANZE (Ger.), BERENGENA (Sp.).

The seed should be sown in hot-beds in the early part of January. When a couple of inches high they should be transplanted into another frame, so that the plants may become strong and robust. When warm enough, generally during March, the plants can be planted in the open ground, about two and a half feet apart. This vegetable is very profitable in the South, and extensively cultivated.

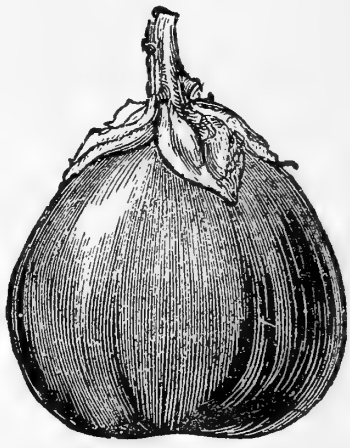
Large Purple, or New Orleans Market. This is the only kind grown here; it is large, oval in shape and of a dark purple color and very productive. Southern grown seed of this, as a good many other tropical or sub-tropical vegetables, is preferable to Northern seed, as it will germinate more readily, and the plant will last longer during the hot season. It is the best variety for shipping, superior to the Northern raised kinds. It carries better. The cut is made from three common specimens and represents the true form.

Early Dwarf Oval. This variety is very early and productive; the fruit is not so large as the New Orleans Egg-Plant, but equal in flavor. For market it will not sell as well as the former; desirable for family garden.

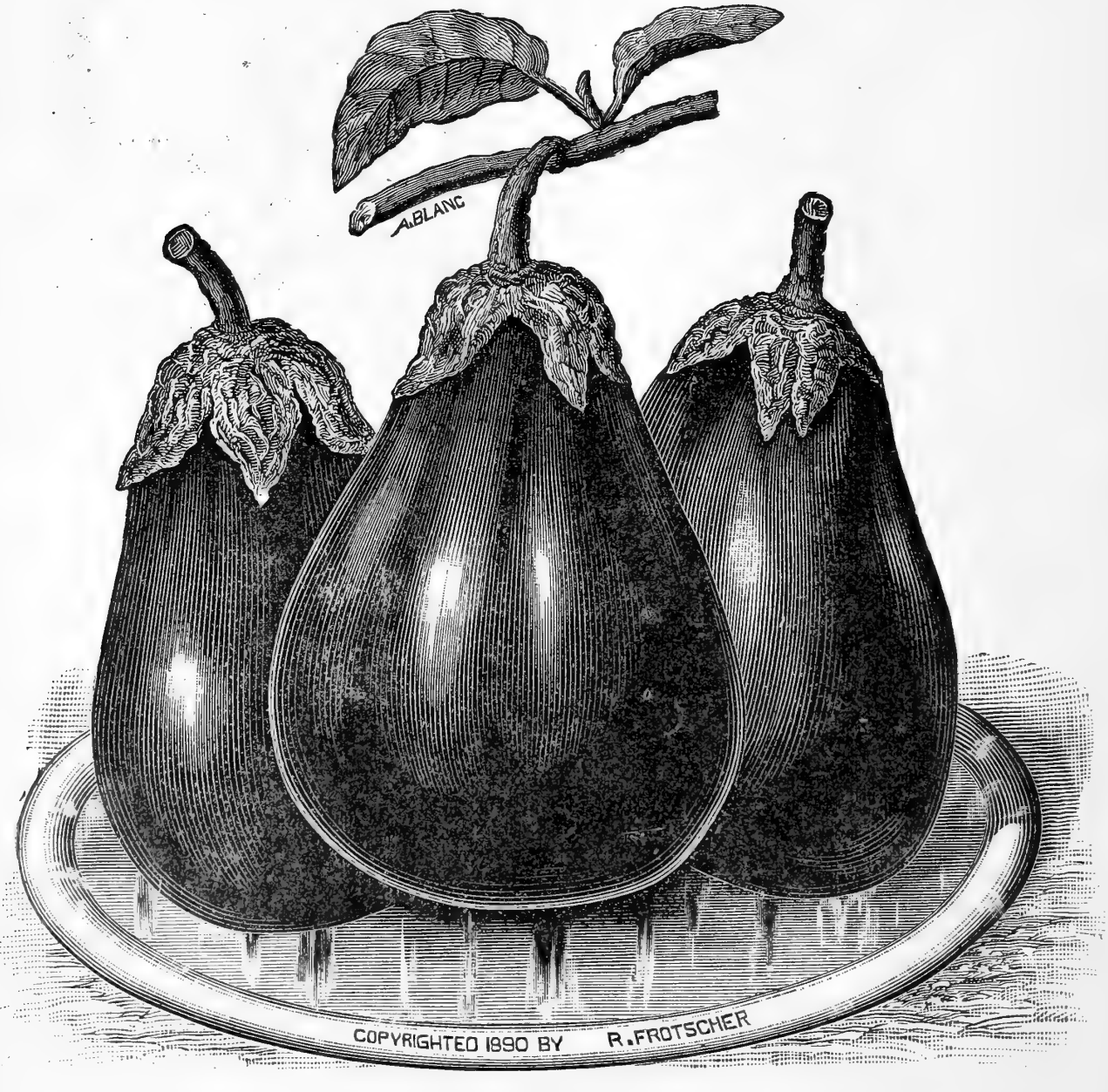
The New York Market. Is rounder in shape than the New Orleans; it has spines on leaves and stems; not very popular here. Shippers and gardeners always give the New Orleans Market variety the preference.



Early Dwarf Oval.



New York Market.

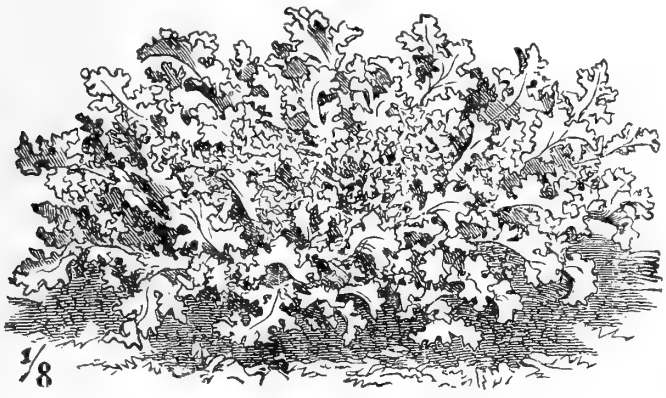


New Orleans Market.

ENDIVE.

CHICOREE (Fr.), ENDIVIEN (Ger.), ENDIBIA (Sp.).

A salad plant which is very popular and much cultivated for the market, principally for summer use. It can be sown in drills a foot apart, and when the plants are well up, thinned out till about eight inches apart. Or it can be sown broad-cast thinly and transplanted the same as Lettuce. When the leaves are large enough, say about eight inches long, tie them up for blanching, to make them fit for the table. This can only be done in dry weather, otherwise the leaves are apt to rot. For summer use do not sow before the end of March, as if sown sooner, the plants will run into seed very early. Sow for a succession during the spring and summer months. For winter use sow in September and October.



Green Curled Endive.

Green Curled. Is the most desirable kind, as it stands more heat than the following sort, and is the favorite market variety.

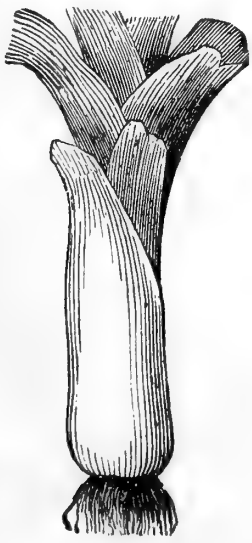
Extra Fine Curled. Does not grow quite so large as the foregoing, and is more apt to decay when there is a wet summer. Better adapted for winter.

Broad-Leaved, or Escarolle. Makes a fine salad when well grown and blanched, especially for summer.

Early White Vienna Kohl-Rabi.

CARLIC.

Garlic. There is more Garlic grown in Louisiana than in any other State, or all States together. It is a staple product of the lower Parishes. It is raised for home consumption and shipping. It is used for flavoring stews, roasts and various other dishes. People from the South of Europe use much more than the inhabitants of the United States. It should be planted in October and November, in drills two to three feet apart, about six inches in the drills and one inch deep. The distance between the rows depends upon the mode of cultivation; if planted in the garden, a foot between the rows is sufficient. It is cultivated like Onions; in the spring they are taken up and plaided together in a string by the tops. One of these strings contains about from 50 to 70 heads in double rows; they are then stored or rather hung up in a dry, airy place. They keep from 6 to 8 months.



Large London Flag Leek.

KOHL-RABI, or TURNIP-ROOTED CABBAGE.

CHOU NAVET (Fr.), KOHL-RABI (Ger.) COL DE NABO (Sp.).

This vegetable is very popular with the European population of this city, and largely cultivated here. It is used for soups, or prepared in the same manner as Cauliflower. For late fall and winter use it should be sown from the end of July till the middle of October; for spring use, during January and February. When the young plants are one month old transplant them in rows one foot apart, and about the same distance in the rows. They also grow finely if sown broad-

cast and thinned out when young, so that the plants are not too crowded; or, they may be sown in drills, and cultivated the same as Ruta Bagas.

Early White Vienna. The finest variety of all, and the only kind I keep. It is early, forms a smooth bulb, and has few small leaves. The so-called large White or Green is not desirable.

LEEK.

Poireau (Fr.), Lauch (Ger.), Puero (Sp.).

A species of Onion, highly esteemed for flavoring soups. Should be sown broad-cast and transplanted, when about six to eight inches high, into rows a foot apart, and six inches apart in the rows. Should be planted at least four inches deep. They require to be well cultivated in order to secure large roots. Sow in October for winter and spring use, and in January and February for summer.

Large London Flag. Is the kind most generally grown.

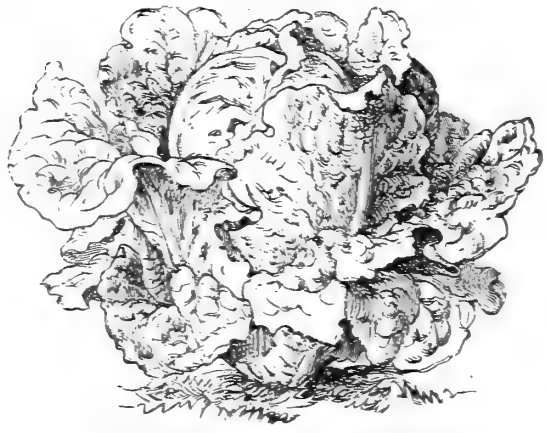
Large Carentan. This is a French variety which grows to a very large size; takes the place of the former.

LETTUCE.

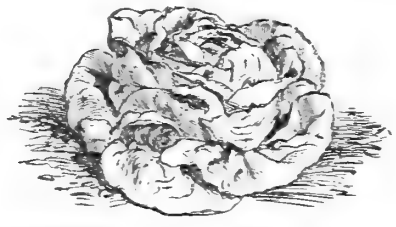
Laitue (Fr.), Lattich (Ger.), Lechuga (Sp.).

Early Cabbage, or White Butter Head.
Improved Royal Cabbage.
Brown Dutch Cabbage.
Drumhead Cabbage.
White Paris Coss.
Perpignan.
New Orleans Improved Large Passion.
Trocadero.

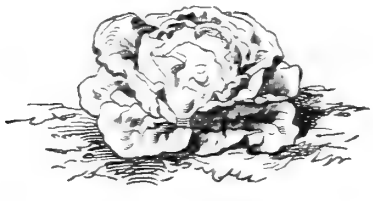
Lettuce is sown here during the whole year by the market gardener. Of course it takes a great deal of labor to produce this vegetable during our hot summer months. For directions how to sprout the seed during that time, see "Work for June." The richer and better the ground the larger the head will be. No finer Lettuce is grown anywhere else than in New Orleans during fall and spring. The seed should be sown broad-cast, when large enough, planted out in rows a foot apart, and from eight to ten inches apart in rows. Some kinds grow larger than others; for instance, Butterhead will not require as much space as Drumhead or Perpignan.



Drumhead Cabbage Lettuce.



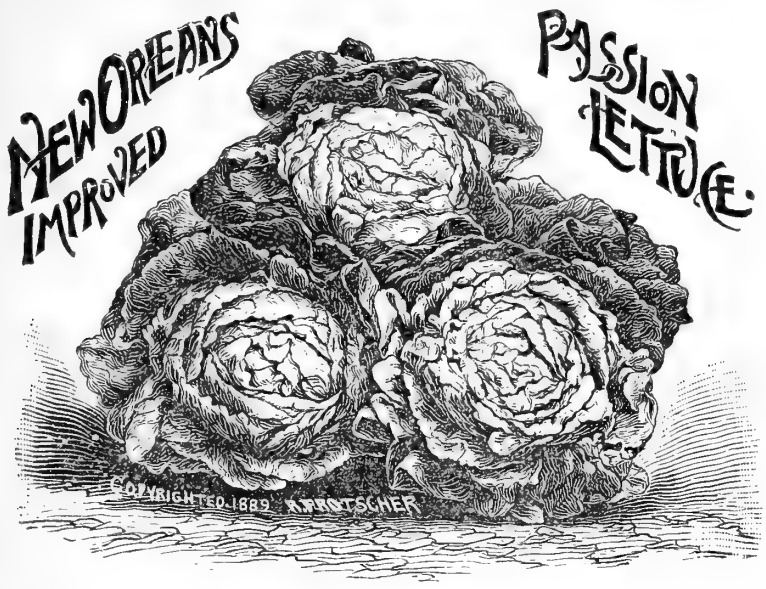
Improved Royal Cabbage Lettuce.



Early Cabbage or White Butter Lettuce.

Perpignan Lettuce.

White Paris Coss Lettuce.

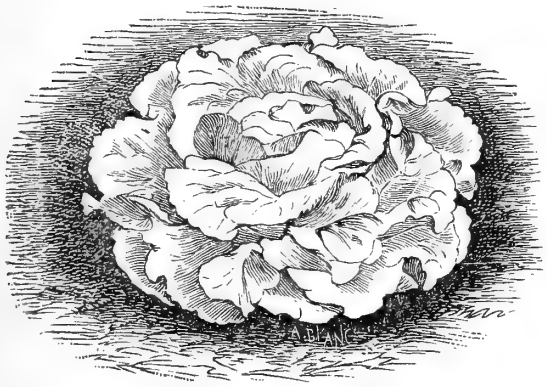


Early Cabbage or **White Butter.** An early variety, forming a solid head, but not quite so large as some others. It is the best kind for family use, to sow during fall and early spring, as it is very early and of good flavor.

Improved Royal Cabbage. This is the most popular variety in this State. Heads light green, of large size, and about two weeks later than the White Butter. It is very tender and crisp; can be sown later in the spring than the foregoing kind and does not run into seed so quickly.

Brown Dutch Cabbage. A very hard kind, forms a solid head; not so popular as many other kinds; good for winter.

Drumhead Cabbage. An excellent spring variety, forming large heads, the outer leaves curled.



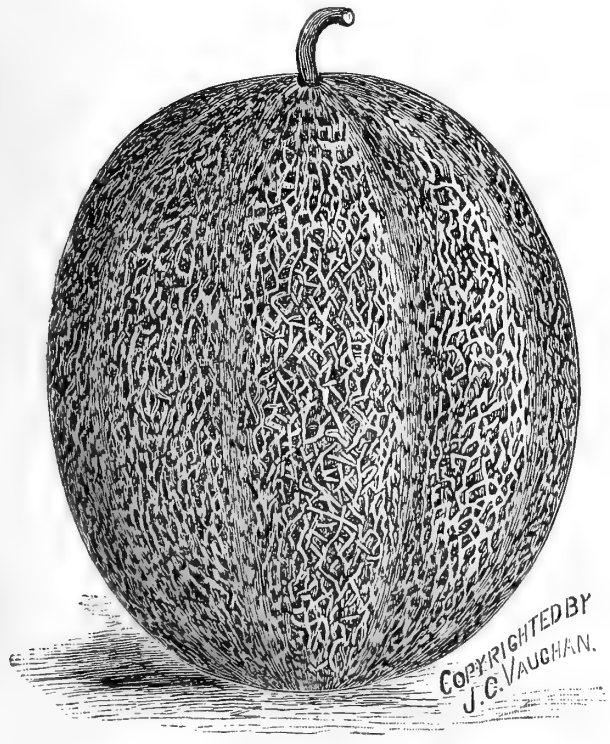
Trocadero Lettuce.

White Paris Coss. This is very popular with the New Orleans market gardeners, as it is the favorite with the French population. It grows to perfection and forms large, fine heads, particularly in the spring of the year.

Perpignan. A fine German variety which forms large, light green heads, and which stands the heat better than the Royal. It is much cultivated for the market, as it thrives well when sown during the latter part of spring.

New Orleans Improved Large Passion. This is a large Cabbage Lettuce introduced by me from California; it attains a large size, grows slowly, but heads very hard. It does better here during late autumn and winter than in summer, as it cannot stand the heat. If sown late in the fall and transplanted during winter, it grows to very large heads, hard and firm. It is the kind shipped from here in the spring, and cannot be surpassed for that purpose.

Trocadero Lettuce. This is a new Cabbage Lettuce from France; it is of light green color, forming a large solid head, resembling the New Orleans Improved Passion Lettuce somewhat in appearance; however, the leaves are thinner, and, therefore, not so well adapted for shipping; it is excellent for forcing.



Osage Melon.

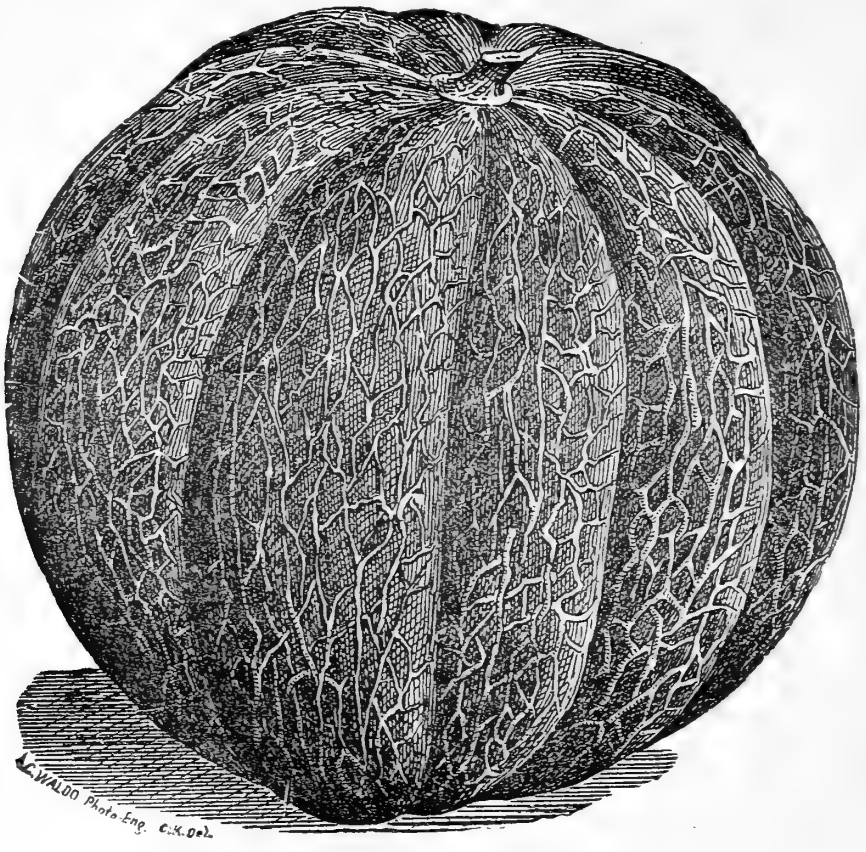
MELON.

MUSK OR CANTELOUPE.

Osage.	*Pine Apple.*
Netted Nutmeg.	*Early White Japan.*
Netted Citron.	*Persian or Cassaba.*

New Orleans Market.

Melons require a rich sandy loam. If the ground is not rich enough, a couple of shovels full of rotted manure should be mixed into each hill, which ought to be from five to six feet apart; drop ten or twelve seeds, and when the plants have two or three rough leaves, thin out to three or four plants. Canteloupes are cultivated very extensively in the neighborhood of New Orleans; the quality is very fine and far superior to those raised in the North. Some gardeners plant during February and cover with boxes, the same as described for Cucumbers. When Melons are ripening, too much rain will impair the flavor of the fruit.



NOTE.—The above cut represents the New Orleans Melon; it has been taken from a common specimen grown by one of my customers, who raises the seed of this variety for me.

Osage Musk Melon. This variety is cultivated largely for the Chicago market. It is small and does not look very attractive, but is of excellent flavor. Recommend it highly for family use. It will not sell well in this market. People here are accustomed to roughly netted melons, such as the New Orleans Market. The Osage is smooth, very slightly netted.

Netted Nutmeg Melon. Small oval melon, roughly netted, early, and of fine flavor.

Netted Citron Canteloupe. This variety is larger than the foregoing kind; it is more rounded in shape, of medium size and roughly netted.

Pine Apple Canteloupe. A medium sized early variety, oval in shape, and of very fine flavor.

Early White Japan Canteloupe. An early kind, of creamish white color, very sweet, and of medium size.

Persian or Cassaba. A large variety, of oval shape and delicate flavor. The rind of this kind is very thin, which is a disadvantage in handling, and prevents it from being planted for the market. Very fine for family use.

New Orleans Market. A large species of the citron kind. It is extensively grown for this market; large in size, very roughly netted and of luscious flavor; different altogether from the Northern Netted Citron, which is earlier but not so fine in flavor, and not half the size of the variety grown here.

The New Orleans Market cannot be excelled by any other variety in the world. In a favorable season it is a perfect gem. I have tried it alongside of varieties praised at the North, such as are brought out every year,—but none of them could compare with the New Orleans Market. As for some years past the seeds were scarce I had some grown North, but they lost their fine qualities, size and flavor. It requires a Southern sun to bring the seed to perfection. Small varieties of melons will improve in size if cultivated here for a number of years, and if care is taken that no Cucumbers, Squashes, Gourds or Pumpkin are cultivated in the vicinity. If the best and earliest specimens are selected for seed, in three or four years the fruit will be large and fine.

New Early Hackensack. A newly introduced variety resembling the well known Hackensack, but not quite so large. It is productive and of good flavor. The seed I offer are Southern grown. It is earlier than the New Orleans Market. Recommend same highly.

MELON.

WATER.

MELON D'EAU (Fr.), WASSERMELONE (Ger.), SANDIA (Sp.).

Ice Cream (White Seeded). *Rattle Snake.* *Kolb Gem.* *Florida's Favorite.*
Mammoth Iron Clad. *Pride of Georgia.* *Seminole.* *Lone Star.*

Water Melon will grow and produce in places where Canteloupe will not do well. The soil for this plant must be light and sandy. Plant in hills about eight feet apart, eight to twelve

seeds in a hill; when the plants are well up thin out to three. The plants should be hoed often, and the ground between the hills kept clean till the vines touch.

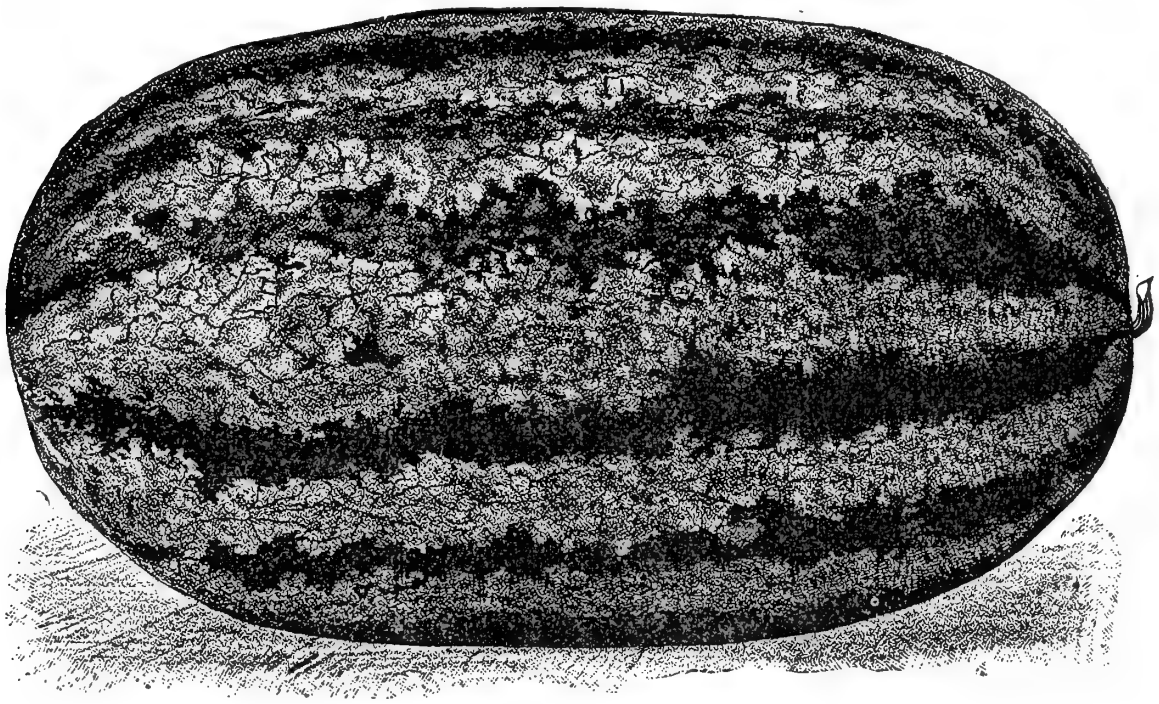
Ice Cream. (White Seeded.) A medium sized variety of excellent quality. It is early and very productive. Being thin in the rind it is not so well adapted for the market as the other kinds; notwithstanding this it is grown exclusively by some for that, on account of its earliness. It has come into general cultivation more and more every year, as it is very sweet, and sells readily in the market.

Rattle Snake. An old Southern variety which has come into notice of late years. It is of large size, light green, with large dark stripes, and is identical with the Gypsy. Fine market variety. It stands transportation better than most other kinds; has been the standard market melon till the Kolb's Gem was introduced. However it always will remain a favorite with market gardeners. The seed I offer of this variety is grown for me by one of the best growers in Georgia. It is of the purest strain that can be found.

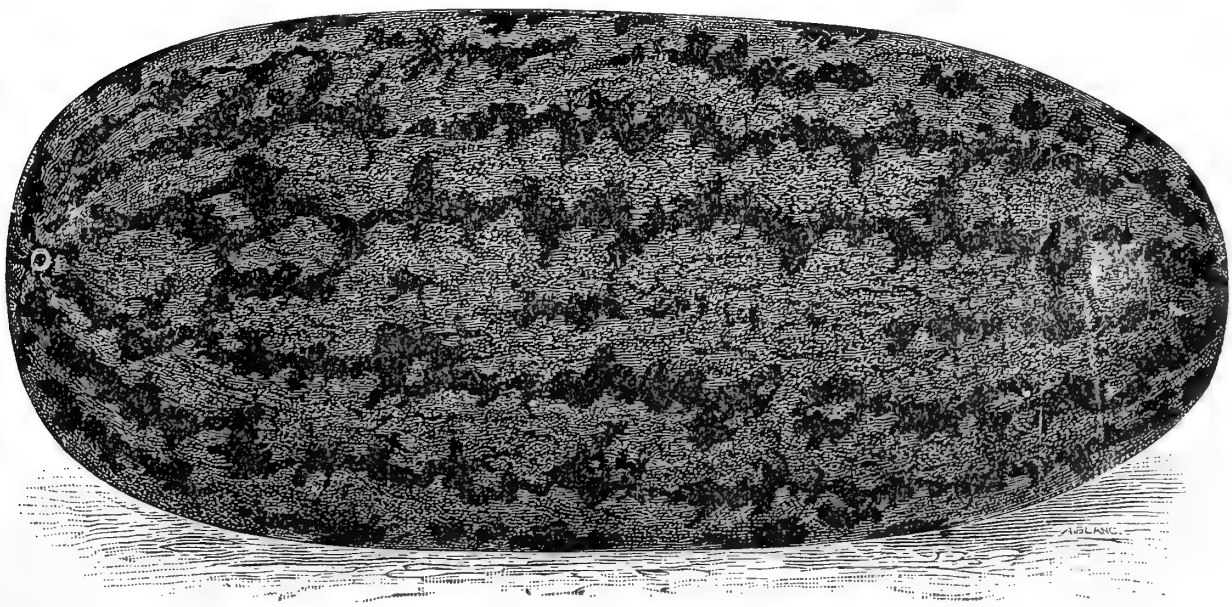
Mammoth Iron Clad. Highly recommended North. It did not do as well as Southern raised seed. I have the seed now grown in Florida, and, no doubt, it will give better satisfaction.

Pride of Georgia. A variety from Georgia, of excellent quality; attains a large size when well cultivated. Very good for family use.

Kolb Gem. Only a few years since this variety has been introduced, but the shipping qualities are so good, that the bulk of melons raised for the market are of that kind. Flesh



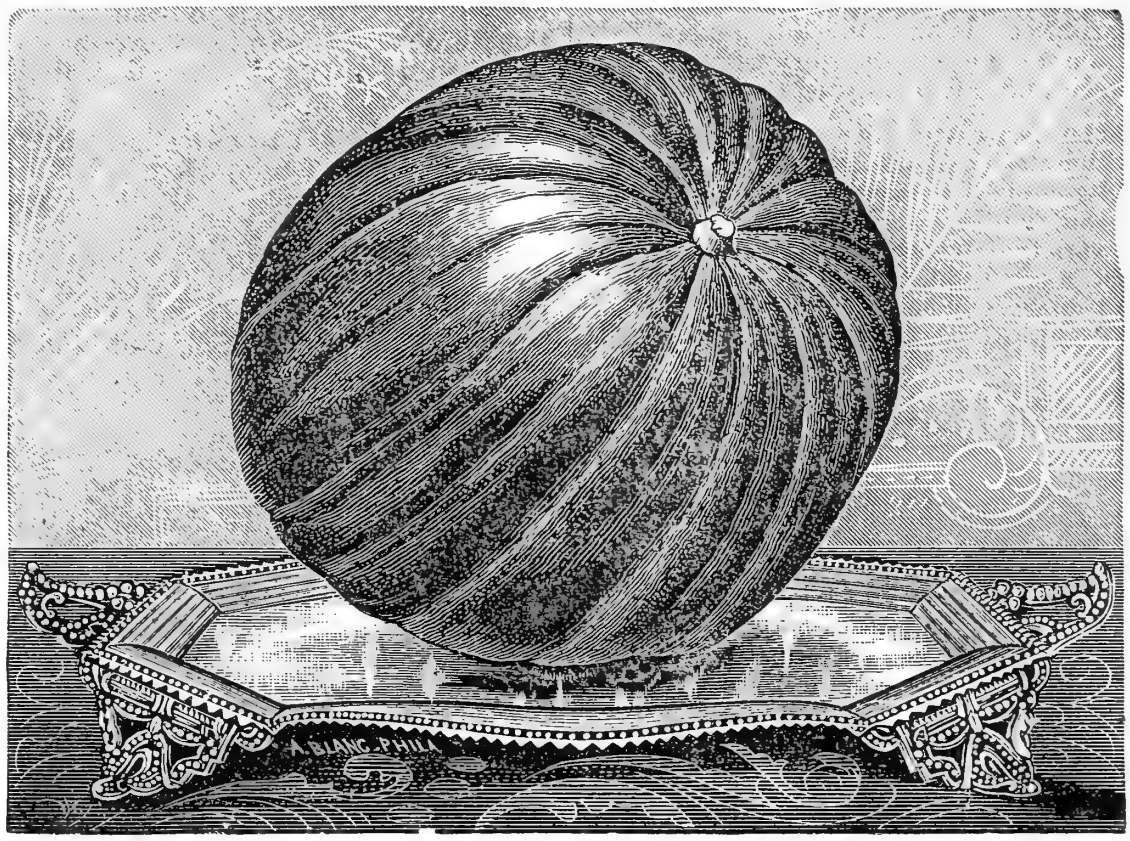
Mammoth Iron Clad.



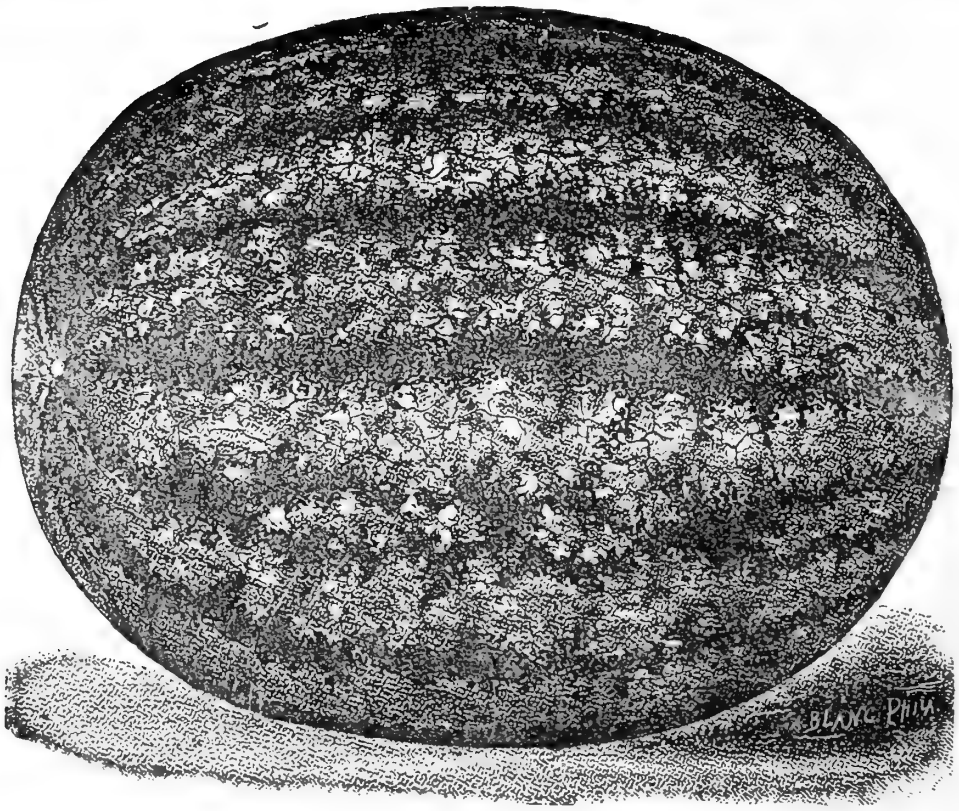
Florida's Favorite

crimson, very thin but tough rind; fine flavor and full of flesh, no hollow in the middle. It is the heaviest melon for its size. What I offer are Southern grown seeds.

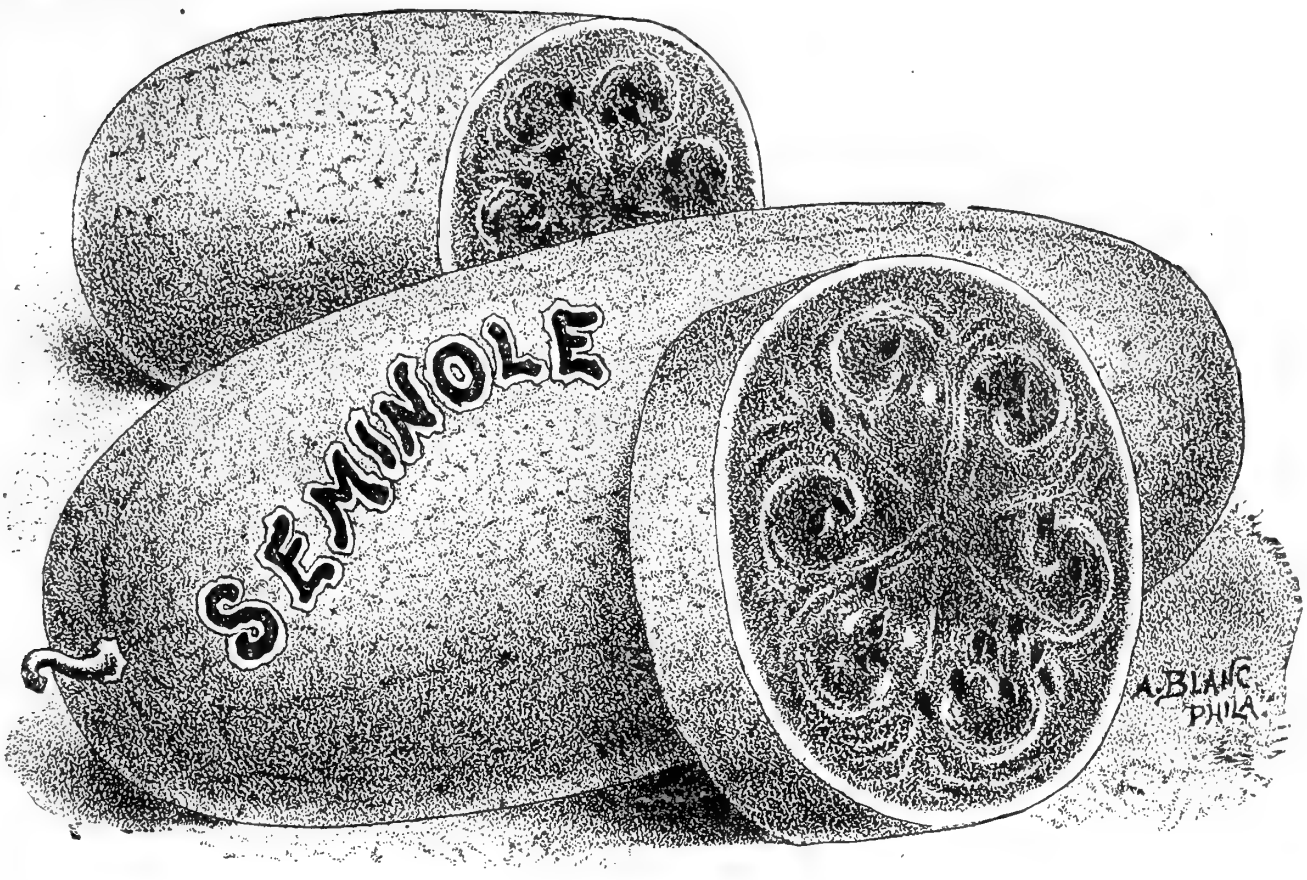
Florida's Favorite. This melon originated with W. M. Girardeau, of Monticello, Fla. It is an excellent variety, prolific, earlier than the Kolb Gem, Rattle Snake or Pride of Georgia, and very fine for the table. It is not as good for shipping as the Kolb Gem, or Rattle Snake; it is of medium size, colored with light and dark green stripes alternately, flesh deep red, deliciously sweet, firm and crisp. One of the best melons.



Pride of Georgia.



Kolb Gem.



Lone Star.

Seminole. A novelty of recent introduction. A very early Melon, oblong in shape, of two colors, some grey and others light green, resembling the Ice Cream, but larger in size. It is fine flavored and productive.

Lone Star Water Melon. This Melon was brought here from Texas by Mr. Nat. Henderson, of Iberia Parish, La. In visiting that section some years ago, I was very favorably impressed with the uniform size of the abundant crop of melons. I secured a small quantity of the seed; but by an unfortunate accident I lost nearly all of them, excepting a few seeds which I had given for trial to some of my customers who make Melon-growing a specialty. It has proven to be the best Melon for this section, either for Market or family use. This Melon is above medium

and very uniform in size; a prolific bearer, oblong in shape; the rind is of mottled green and black color, somewhat like the Rattlesnake, but of a darker green. The flesh is of a deep red color, solid, crisp and very sweet; in flavor it cannot be excelled by any variety. It is excellent for market as well as for family use. When better known it will become one of the leading varieties for the South. Recommend same very highly.

MUSTARD.

Moutarde (Fr.), Senf (Ger.), Mostaza (Sp.).

White or Yellow Seeded. | *Large Leaved Curled.* | *Chinese very large Cabbage Leaved.*

This is grown to quite an extent in the Southern States, and is sown broad-cast during fall, winter and spring. It may be used the same as Spinach, or boiled with meat as greens. The White or Yellow Seeded is very little cultivated, and is used chiefly for medical purposes, or pickling. The large-leaved or Curled has black seed, a distinct kind from the Northern or European variety. The seed is raised in Louisiana. It makes very large leaves; cultivated more and more every year.

Large-Leaved Curled. This is the favorite kind here, sown largely for the market. Leaves are pale green, large and curled or scalloped on the edges.

Chinese Very Large Cabbage-Leaved. This is a European variety, with light green very large leaves. It has not the same taste as the large-leaved or the large curled, but will stand longer before going to seed.

NASTURTIUM.

Capucine (Fr.), Indianische Kresse (Ger.), Capuchina (Sp.).

Tall. | *Dwarf.*

Planted here only for ornament. (For description see List of Climbing Plants.)

OKRA.

Green Tall-Growing. | *Dwarf Green.* | *White Velvet.*

This is a highly esteemed vegetable in the South, and no garden, whether small or large, is without it. It is used in making "Gumbo," a dish the Creoles of Louisiana know better how to prepare than any other nationality. It is also boiled in salt and water, and served with vinegar as a salad, and is considered a wholesome dish. Should not be planted before the ground is warm in spring, as the seeds are apt to rot. Sow in drills, which ought to be two to three feet apart, and when up, thin out, and leave one or two plants every twelve or fifteen inches.

Tall Growing. This is the variety most cultivated here. The pods are long, round towards the end, and keep tender longer than the square podded kind.

Dwarf Green Prolific. This is an extra early variety, very prolific; the pods are close together, from which the name. If planted for market it will be only in demand up to the time the long podded varieties come in; as in this market no ribbed pods sell well.

White Velvet Okra.

Tall Growing Okra.

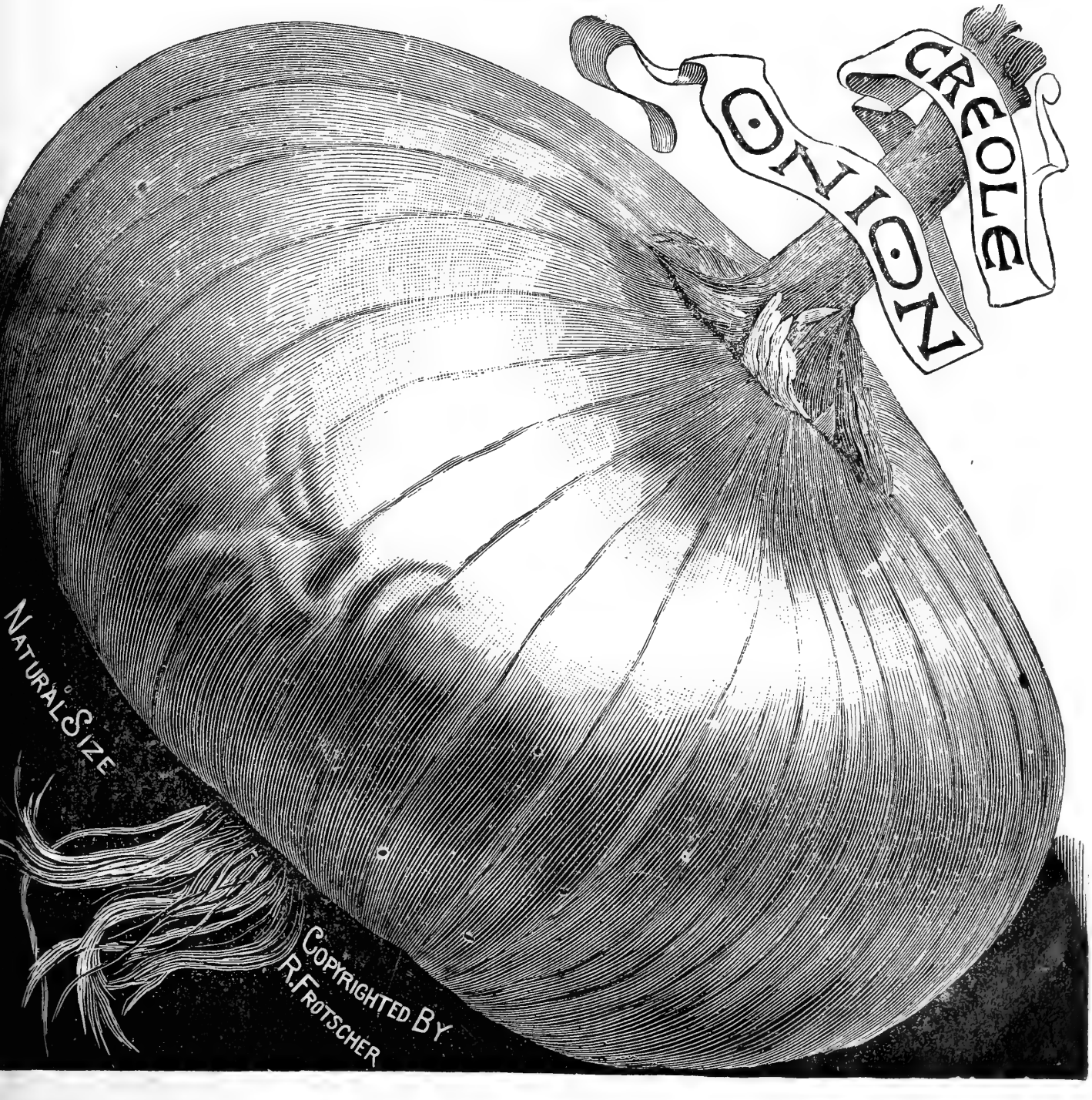
White Velvet. A white variety; dwarf with round, smooth pods, free from ridges and seams, and not prickly to the touch; very prolific and early. I tried this variety thoroughly. It has come up to what is claimed for it. I recommend it to all who have not tried it.

ONION.

Ognon, (Fr.), Zwiebel, (Ger.), Cebolla, (Sp.).

Louisiana or Creole.
Red Bermuda.
White Bermuda.
White Queen.

The following cut represents a well-grown Onion raised from Louisiana or Creole seed. The Onion is one of the most important vegetables planted in this section. Thousands of barrels are annually shipped from here to the West and North. If sown at the proper time, with ordinary cultivation, they will always produce a crop and meet with ready sale. The seed is not a sure crop every year and some years it sells very high; the past season I had a fair crop of good heavy seed. Up to two years ago I could never find any variety of onion which



would form good bulbs like the Creole; I have tried all the Italian kinds before without success, but having no Louisiana seed at all, I imported the **True Red Bermuda** seed, which is raised at Teneriffe and the coast of Africa. It is a flat shaped onion, a little lighter in color than the Creole, earlier, and does not shoot up like that kind; comes in the market just after the shipping from the West is exhausted; hits the market at the proper time; would recommend the Bermuda for home use and home market, but for shipping to distant markets it is unfit, as it decays quickly, and when dry peels off. The Creole has the preference, even shot up Onions sell for a better price than the Bermuda. *None of the Northern grown seeds sown here will produce any onion.*

White Bermuda Onion. This variety is of the same shape, size and flavor as the RedBermuda; the only difference is the color, which is pure white. Very good for family use.

The **Louisiana or Creole Onion** has been cultivated here for a century,—supposed to have been brought here, first, from the south of Europe; I presume the bulbs produced but few seeds. It is hard to say from what variety this Onion originated; having been planted here for so long, it has become a distinct kind. It is not as red as the Wethersfield, and not as light as the Strassburg; in flavor it is similar to the two last named varieties, but much stronger than the Italian kinds. In this latitude the seed should be sown from the 15th of September to about the 10th of October; if sown sooner a good many will throw up seed stalks, which impairs the keeping quality of the onion. We sow the seed broad-cast, protect the seed beds by spreading green moss over them, which is removed every evening and replaced in the morning. Some gardeners use Latanniers for covering the beds. When the seed is coming up, say in 7 or 9 days, the cover has to be removed entirely; but if the weather is dry, the watering has to be continued. They thrive best in loamy soil. Can be planted in same ground for years; they require no rotation as other crops.

When the plants have reached the size of a goose quill, they are transplanted into rows, which can be from one to two feet apart, according to the mode of cultivation, and about five to six inches apart in the rows. The ground should be thoroughly prepared before setting out the plants. We generally shorten the tops and roots. In April the onion will be ready to be taken up.

In sections where it is too cold to sow Onion seed in the fall, the Creole seed can be sown in January and February; in that case they should be sown very thinly in drills, thinned out to proper stand, and by the end of spring they will produce a good sized Onion. Growers here use very little, if any, fertilizers, but it can be used with advantage. One of my customers used 500 pounds of phosphated bone on some of his crop, and the result was very satisfactory. He sold from three acres, 250 barrels of onions, flour barrels, well packed for shipping, not produce barrels as sent here from the West. He also had a lot of small ones left for home use. For spring sowing I recommend the Bermuda seed.

The seed of the Creole Onion, which I offer, is raised for me by an old experienced onion grower at Lafourche; he has raised seed for me for over twenty years. No better stock can be found. I do not depend upon chance purchases; very often seeds raised from shot up onions are sold very low, but will not produce good merchantable onions, having a tendency to go to seed again before the bulb is matured. Most gardeners here know all about the cultivation of Creole Onion; these remarks, therefore, are made for those who live in adjoining States where the Creole Onion can be successfully cultivated — more so in Texas, Mississippi and Florida. The demand for Creole Onion seed from these sections increases every year, especially from Texas.

ITALIAN ONIONS.

White Queen. This is a medium sized, white variety from Italy, very early and flat; can be sown as late as February, and good sized bulbs will yet be obtained. It is of mild flavor and very fine when boiled and dressed for the table. It cannot be too highly recommended.

SHALLOTS.

ECHALLOTTE (Fr.), SCHALLOTTEN (Ger.).

A small sized Onion which grows in clumps. It is generally grown in the South, and used in its green state for soups, stew, etc. There are two varieties, the Red and White; the latter

variety is the most popular. In the fall of the year the bulbs are divided and set out in rows a foot apart, and four to six inches in the rows. They grow and multiply very fast, and can be divided during winter, and set out again. Late in Spring, when the tops become dry, they have to be taken up, thoroughly dried, and stored in a dry airy place.

PARSLEY.

PERSIL (Fr.), PETERSILIE (Ger.), PERJIL (Sp.).

Plain Leaved.
Double Curled.
Improved Garnishing.

Parsley can be sown during the fall from August to October, and during spring, from the end of January to the end of April. It is generally sown broad-cast.

Plain Leaved. This is the kind raised for the New Orleans Market.

Double Curled. The leaves of this variety are curled. It has the same flavor as the other kind, but is not so popular.

Improved Garnishing. This is the best kind to ornament a dish; it has the same flavor as the other kinds.

PARSNIP.

PANAIS (Fr.), PASTINAKE (Ger.), PASTINACA (Sp,).

Hollow Crown, or Sugar.

Should be sown in deep, mellow soil, deeply spaded, as the roots are long, in drills twelve to eighteen inches apart; when the plants are three inches high, thin out to three inches apart in the row. Sow from September to November for winter, and January to March for spring and summer crops.

The Hollow Crown, or Sugar, is the kind generally cultivated; it possesses all the good qualities for which other varieties are recommended.

PEAS.

POIS (Fr.), ERBSE (Ger.), GUISANTE (Sp.).

EARLIEST.

Cleveland's Alaska, 2½ feet.
Extra Early, or First and Best, 2½ feet.
Early Washington, 3 feet.
Early Tom Thumb, 1 foot.
Laxton's Alpha, 3 feet.
American Wonder, 1½ feet.

SECOND CROP.

Bishop's Dwarf Long Pod, 1½ feet.
Champion of England, 5 feet.
McLean's Advancer, 3 feet.
Carter's Stratagem, 2½ feet.
McLean's Little Gem, 1½ feet.
Laxton's Prolific Long Pod, 3 feet.
Eugenie, 3 feet.
Carter's Telephone, 5 feet.

GENERAL CROP.

Dwarf Blue Imperial, 3 feet.
Royal Dwarf Marrow, 3 feet.
Black Eyed Marrowfat, 4 feet.
Large White Marrowfat, 4 feet.
Dwarf Sugar, 2½ feet.
Tall Sugar, 6 feet.

Peas are a fine vegetable, and therefore are very generally cultivated. It is best to plant in ground manured the previous year, else they will make more vines than peas. As a general thing the dwarf kinds require richer ground than the tall growing varieties. Marrowfat Peas planted in rich ground will not bear well, but they produce finely in sandy light soil.

The Extra Early, Tom Thumb and Laxton's Alpha will not produce a large crop without being in rich ground. Peas have to be planted in drills two inches deep and from two to three feet apart, according to the height they may grow. Tom Thumb can be planted one foot apart, whereas White Marrowfat or Champion of England require three feet. The Extra Early, Alpha and Tom Thumb can be planted during August and September for fall. During November and December we plant the Marrowfat; January and February, as late as March, all kinds can be planted; but for the latter month only the earliest varieties should be used, as the late varieties will get mildewed before they bring a crop. Peas will bear much better if some brush or rods are stuck in the drills to support them, except the very dwarf kinds.

Early Alaska. This is an extra early Pea, blue in color, the earliest by a few days of any other kind; very pure and prolific, the best flavored pea among the Extra Early smooth podded kinds. Recommend it highly.

Extra Early, or First and Best. This was the earliest Pea cultivated, until the Alaska was introduced; very popular with the small market gardeners here, who have rich grounds. It is very productive and well flavored. The stock I sell is as good as any other in the country, not surpassed by any, no matter whose name is put before "Extra Early."

Early Washington, Early May or Frame, which are all nearly the same thing; is about ten days later than the Extra Early. It is very productive and keeps longer in bearing than the foregoing kind. Pods a little smaller. Very popular about New Orleans.

Tom Thumb. Very dwarfish and quite productive. Can be cultivated in rows a foot apart; requires no branches or sticks.

Laxton's Alpha. This is the earliest wrinkled pea in cultivation; of delicious flavor and very prolific. This variety deserves to be recommended to all who like a first class pea. It will come into general cultivation when better known.

American Wonder. A wrinkled pea of dwarf growth; 10 to 12 inches; it is prolific, early and of fine quality; it comes in after the Extra Early.

Bishop's Dwarf Long Pod. An early dwarf variety; very stout and branching, requires no sticks but simply the earth drawn around the roots. It is productive and of excellent quality.

Champion of England. A green wrinkled variety of very fine flavor; not profitable for the market, but recommended for family use.

McLeans' Advancer. This is another green, wrinkled variety, about two weeks earlier than the foregoing kind.

McLean's Little Gem. A dwarf, wrinkled variety. It is early, very prolific and of excellent flavor. Requires no sticks.

Laxton's Prolific Long Pod. A green narrow pea of good quality. Pods are long and well filled. It is second early, and can be recommended for the use of market gardeners, being very prolific.

Eugenie. A white wrinkled variety, of fine flavor; it is of the same season as the Advancer. Cannot be too highly recommended for family use.

Carter's Stratagem. This is a wrinkled variety from England. It is very distinct in vine and foliage, growing thick and large, does not need any support. It is the Largest Podded variety ever brought out, pods 4—5½ inches long, which cannot be surpassed in flavor, and is very productive. Recommend it highly.

Carter's Telephone. Another wrinkled English late variety; grows about from 4½ to 5 feet high. The pods are very long, containing from 8—12 fine flavored peas. It is productive; will bear twice as much as the

Early Alaska.

Champion of England which is about of the same season.

Dwarf Blue Imperial. A very good bearer if planted early, pods are large and well filled.

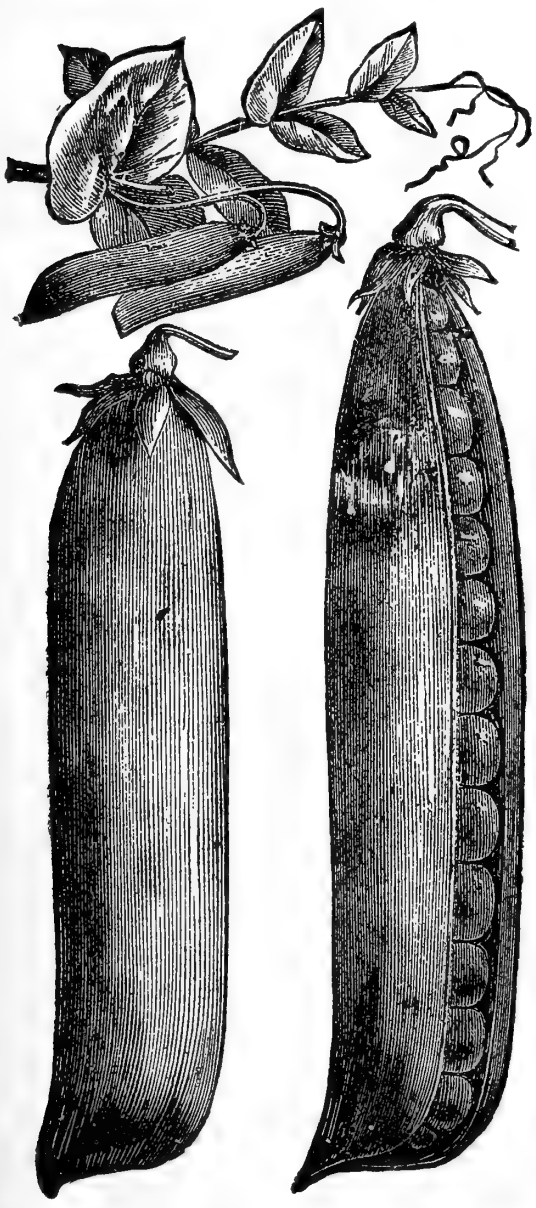
Royal Dwarf Marrow. Similar to the large Marrowfat, but of dwarf habit.

Black-eyed Marrowfat. This kind is planted more for the market than any other. It is very productive, and when young, quite tender. Grows about four feet high.

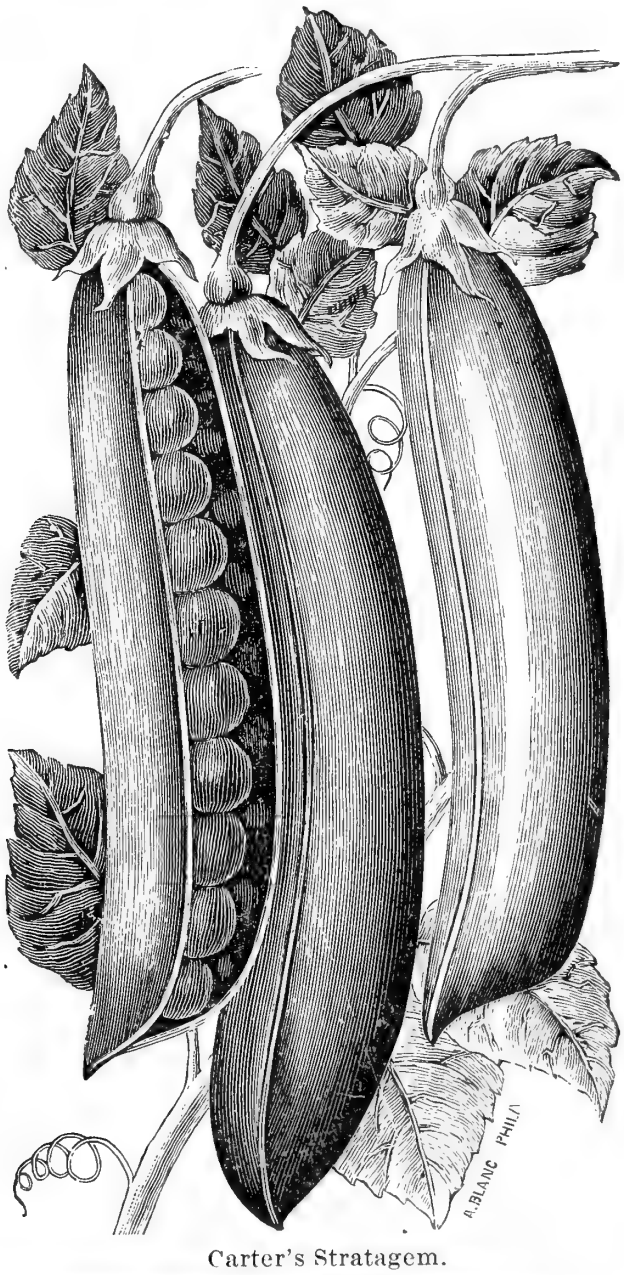
Large White Marrowfat. Similar to the last variety, except that it grows about two feet taller and is less productive.

Dwarf Sugar. A variety of which the whole pod can be used after the string is drawn off from the back of the pod. Three feet high.

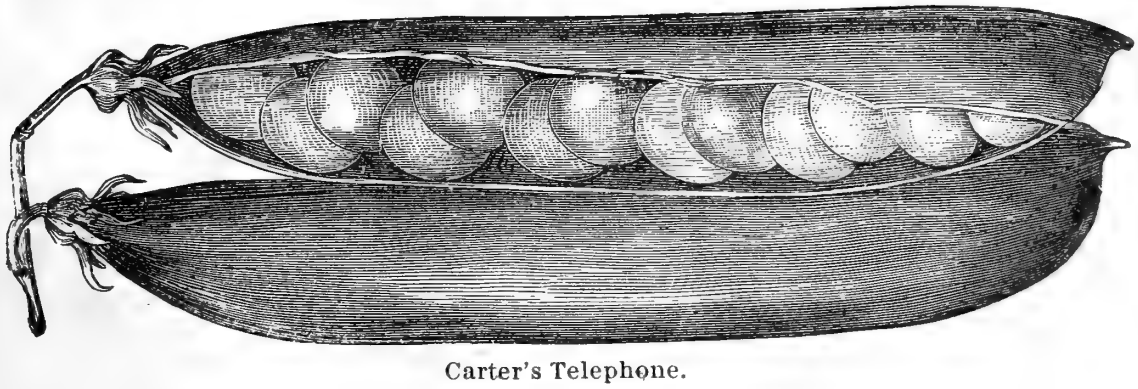
Tall Sugar. Has the same qualities as the foregoing kind, only grows taller, and the pods are somewhat larger. Neither of these two varieties are very popular here.



Extra Early, or First and Best.



Carter's Stratagem.



Carter's Telephone.

THE PEA BUG.

All peas grown near Philadelphia have small holes in them, caused by the sting of the Pea Bug, while the pod is forming, when it deposits its egg in it. Later the insect perfects itself and comes out of the dry pea, leaving the hole.

The germ of the pea is never destroyed, and they grow equally as well as those without holes. Market gardeners in this neighborhood who have been planting these Extra Early Peas for years, will not take them without holes, and consider these a trade mark.

FIELD OR COW PEAS.

There are a great many varieties of Cow Peas, different in color and growth. They are planted mostly for fertilizing purposes and are sown broad-cast; when in a good stand, and of sufficient height, they are plowed under. The Clay Pea is the most popular. There are several varieties called crowders, which do not grow as tall as the others, but produce a great many pods, which are used green, the same as snap-beans, and if dried, like dried beans, make a very good dish. The crowders are of an oblong shape, almost pointed at one end; they are on an average larger than the other Field Peas. Lady Peas are small, white with a black eye; they are generally planted between corn, so that they can run up on it. Dry, they are considered the very best variety for cooking.

PEPPER.

PIMENT (Fr.), SPANISCHER PFEFFER (Ger.), PIMENTO (Sp).

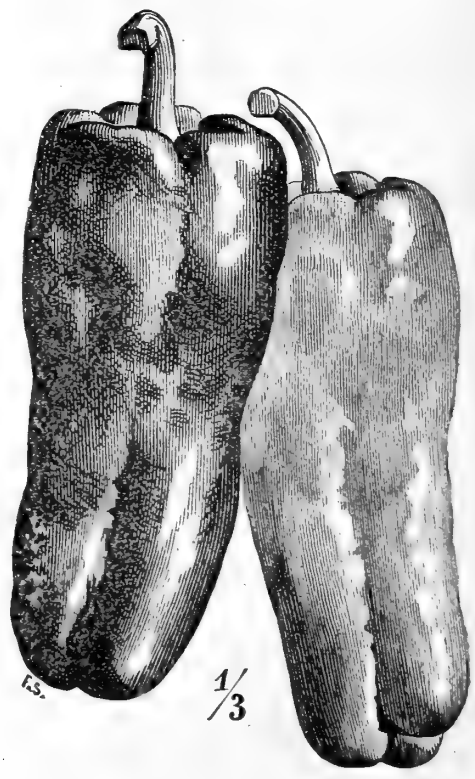
Bell or Bull Nose.
Sweet Spanish Monstrous.
Sweet Ruby King.
Golden Dawn Mango.
Long Red Cayenne.
Red Cherry.
Bird Eye.
Chili.
Tabasco.
Red Cluster.

Peppers are tender and require to be raised in the hot-bed. Seed should be sown in January and when large enough transplanted into the ground in rows from one and a half to two feet apart, and a foot to a foot and a half in the rows. There are more Peppers raised here than in other sections of the country; the hot varieties are used for seasoning and making pepper sauce; the mild variety is highly esteemed for salad. Care should be taken not to grow different kinds close together, as they mix very readily.

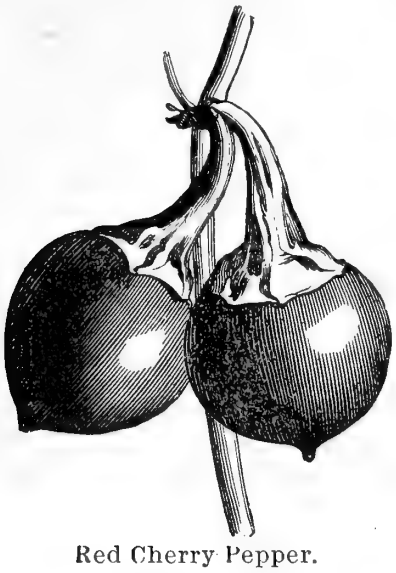
Sweet Spanish or Monstrous. A very popular variety, much cultivated. It is very mild, grows to a large size, tapering towards the end, and when green, is used as a salad. Superior for that purpose to any other kind.

Sweet Pepper, Ruby King. This variety grows to a larger size than the Sweet Spanish Monstrous, and is of different shape. The fruit is from 5 to 6 inches long by about 3 to 4 inches in diameter, and of bright red color. It is remarkably mild and pleasant in flavor, and can be sliced and eaten as a salad, the same as the Spanish Monstrous. Single plants ripen from 8 to 10 fruits, making this variety both productive and profitable. A decided acquisition.

Sweet Pepper Ruby King.



Sweet Spanish, or Monstrous Pepper.



Red Cherry Pepper.

Long Red Cayenne Pepper.

Golden Dawn Mango. This sweet pepper attracted much attention for the last few years, and was admired by all who saw it. I believe it to be all the originator claims for it. In shape and size it resembles the Bell. Color, *a bright waxy golden yellow;* very brilliant and handsome. Single plants ripen from twelve to twenty-four fruits, making them productive and profitable. They are

Red Cluster Pepper.

entirely exempt from any fiery taste or flavor, and can be eaten as readily as an apple.

Bell or Bull Nose. Is a large oblong variety which is not sweet or mild, as thought by some people. The seeds are very hot. Used for pickling.

Long Red Cayenne. Is very hot and pungent. Cultivated here and used for pepper sauce and seasoning purposes. There are two varieties, one is long and straight, and the other like shown in cut, which is the only kind I keep.

Red Cherry. A small roundish variety, very hot and productive.

Bird Eye. Small, as the name indicates. It is very hot and used principally for pepper vinegar.

Chili. A small variety, from three-fourths to an inch long. It is strong and used for pepper sauce; very prolific.

Tabasco. True. Another small variety, used more for pepper sauces than any other kind; the fruit is easily gathered, growing almost erect on the branches; do not adhere to the stem when gathered.

Red Cluster. A new variety of which the pods grow in bunches, upright like the Chili which the pods resemble, but are a little larger. It is quite distinct; ornamental on account of the bright fruit and compact growth of the plant. It is hot and pungent.

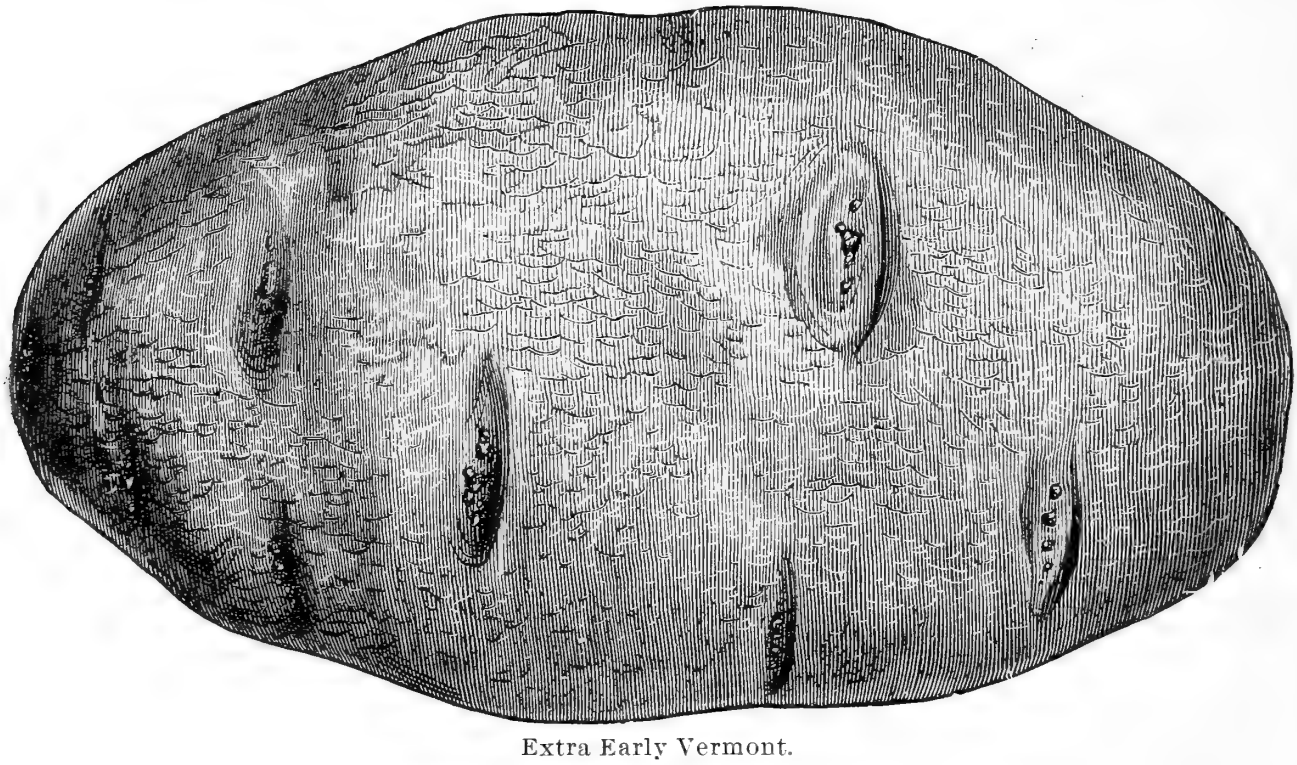
POTATOES.

Pomme de Terre (Fr.), Kartoffel (Ger.).

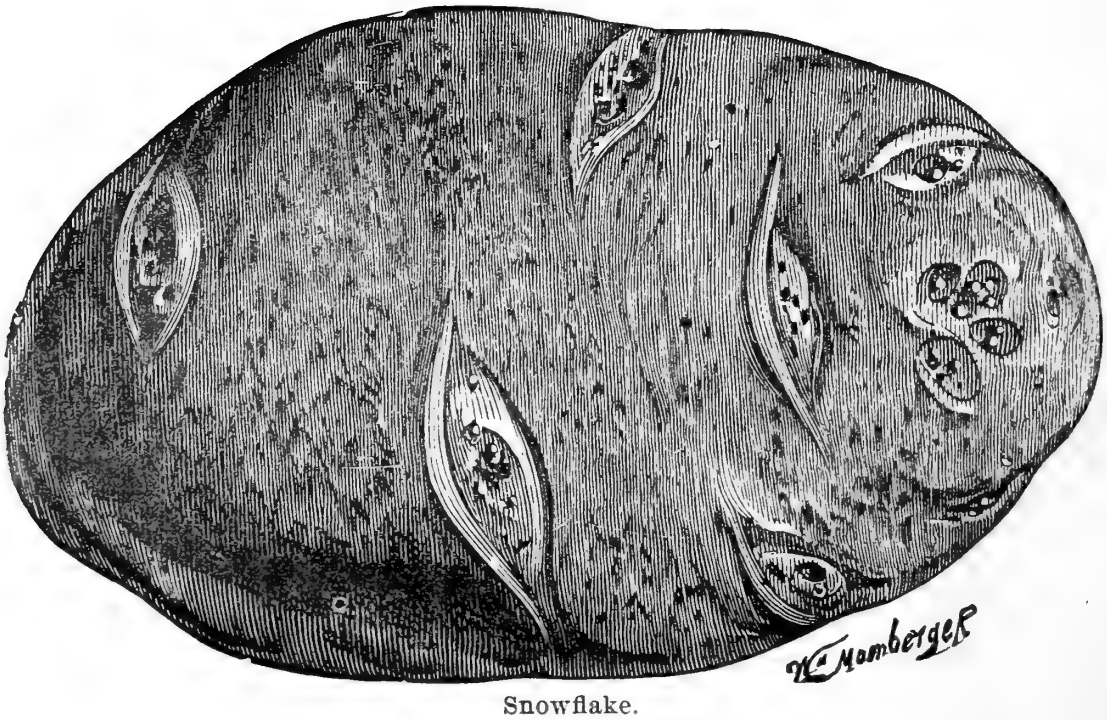
Early Rose.
Breese's Peerless.
Extra Early Vermont.
Snowflake.
Beauty of Hebron.
White Elephant.
Rural Blush.
Rural New Yorker No. 2.
The Thorburn.
Early Sunrise.

The above varieties were tried on the grounds of the Louisiana Experiment Station at Calhoun, La., and Audubon Park, New Orleans; among 150 different kinds tested they gave about the best results, both in yield and quality.

Potatoes thrive and produce best in a light, dry but rich soil. Well decomposed stable manure is the best, but if not to be had, cotton seed meal, bone dust, or any other fertilizer should be used to make the ground rich enough. If the ground was planted the fall previous with Cow Peas, which were plowed under, it will be in good condition for Potatoes. Good sized tubers should be selected for planting, which can be cut in pieces not too small, each piece ought to contain at least three eyes. Plant in drills from two to three feet apart, according to the space and how to be cultivated afterwards. Field culture, two and a half to three feet apart; for garden, two feet will answer. We plant potatoes here from end of December to end of March, but the surest time is about the first of February. If planted early they should be planted deeper than if planted late, and hilled up as they grow. If potatoes are planted shallow and not hilled soon, they will suffer more, if caught by a late frost, than if planted deep and hilled up well. Early potatoes have not the same value here as in the North, as the time of planting is so long, and very often the first planting gets cut down by a frost, and a late planting, which may just be peeping through the ground, will escape and produce in advance of the first planted. A fair crop of potatoes can be raised here if planted in August; if the autumn is not too dry, they will bring nice tubers by the end of November. They should not be cut if planted at this time of the year, but planted whole. They should be put in a moist



Extra Early Vermont.

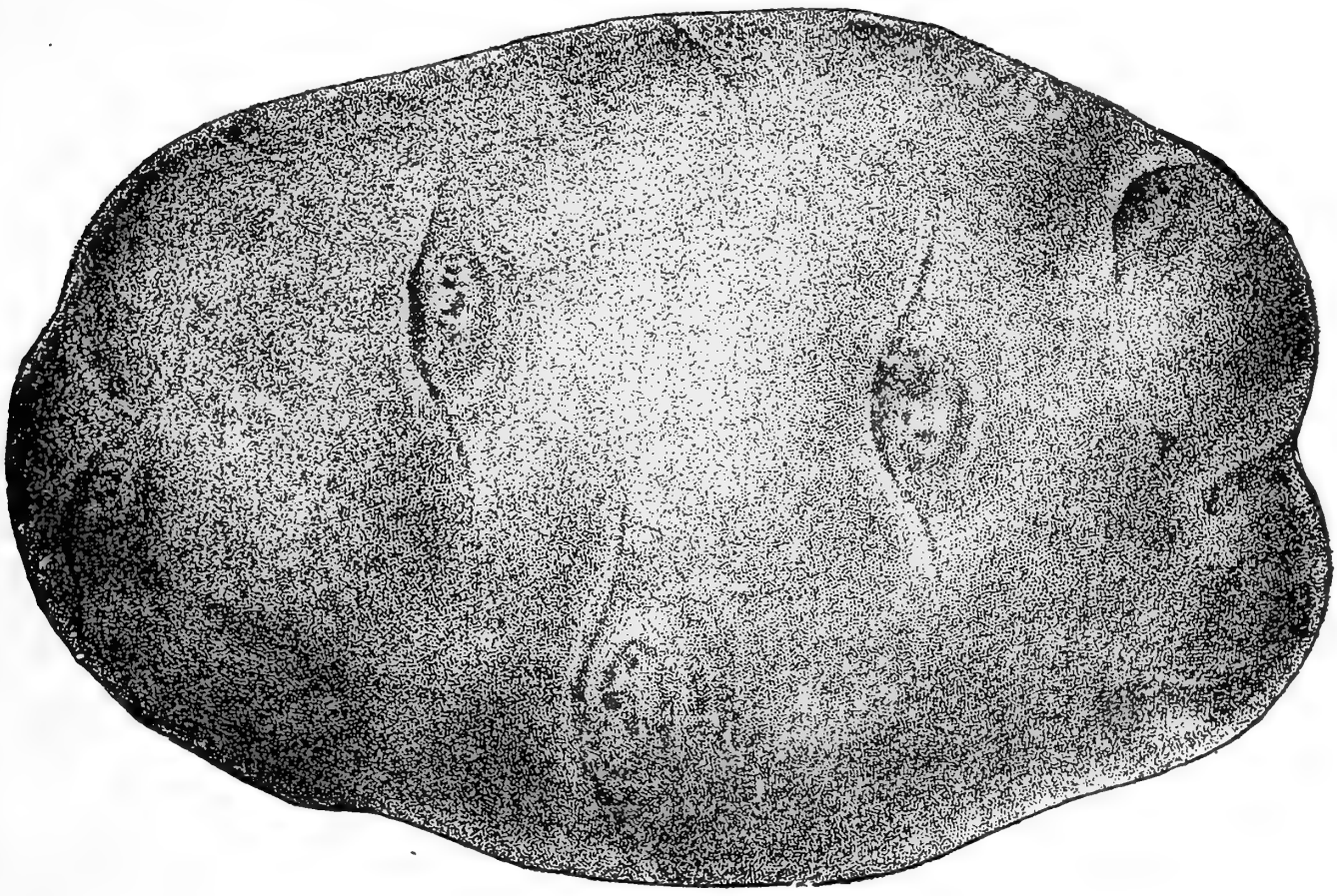


Snowflake.

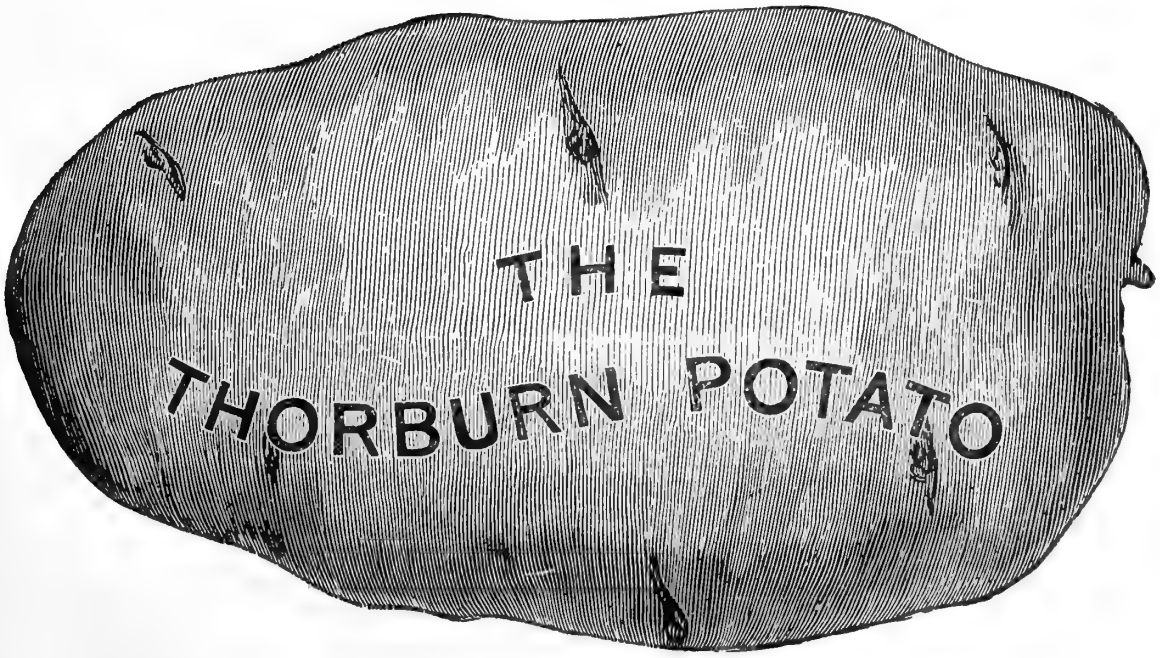
place before planting, so they may sprout. The early varieties are preferable for this time of planting.

I have been handling several thousand barrels of potatoes every season for planting, and make Seed Potatoes a specialty. The potatoes I sell are Eastern grown, which, as every one interested in potato culture knows, are superior and preferable to Western grown.

I have tried and introduced all new kinds here; but of late so many have come out that it is almost impossible to keep up with them. New varieties of potatoes come out with fancy prices, but these prices for new potatoes do not pay here, as we can keep none over for seed, and any person raising for the market would not realize a cent more for a new fancy variety per barrel, than for a barrel of good Peerless or Early Rose. Earliness is no consideration, as we plant from December to end of March. Somebody may plant Early Rose in December and another in February, and those planted in February come to the market first; it depends entirely upon the season. If late frosts set in, early planted potatoes will be cut down, and those just coming out of the ground will not be hurt.



Rural New Yorker No 2.



Up to now the Peerless is the standard variety. Among the new kinds I have tried, I find the White Elephant to be a fine potato. It is a very strong grower, tubers oblong, very productive, good quality and flavor. It is late, and will come in at the end of the season, if planted with the earlier varieties. The Extra Early Vermont, Beauty of Hebron, Snowflake and Early Rose for early, and Peerless, White Elephant and Rural New Yorker for late, are as good varieties as exist, and it is not likely that we will have anything better by new introductions. The Rural Blush, which I introduced some years ago, may be added to the late varieties; it is of excellent quality, strong grower and yields heavily. Most people are not careful enough in selecting their seed. Some of the potatoes sold in this market for seed are not fit for planting.

Early Rose. This is, without any doubt, the best potato for the table. It is oval, very shallow-eyed, pink-skinned, very dry, and mealy when boiled. It has not become so popular as it deserves as a market variety, as pink or red potatoes do not sell so well here as the white kinds. This variety should not be planted too soon, from the fact that they make small stalks, and if cut down by frost, they suffer more than other varieties; but they want rich, light soil to grow to perfection.

Breese's Peerless. Several years ago this variety was introduced, yet at present it is the leading kind for market as well as for family use. Skin dull white, sometimes slightly russetted; eyes few and shallow, round, occasionally oblong; grows to a large size; very productive and earlier than the Jackson White. As white potatoes are more salable than pinkish kinds, and as this variety is handsome in appearance and of good quality, it has become the general favorite in this section.

Extra Early Vermont. Very similar to the Early Rose, but of a stronger growth; a little earlier, and the tubers are more uniform and larger. It is an excellent table variety.

Snowflake. This is an early variety. Tubers good, medium size, elongated, very uniform and quite productive. Eyes flat on the body of the tuber, but compressed on the seed end. Skin white, flesh very fine grained, and when boiled, snow white.

Beauty of Hebron. I have tried this variety thoroughly and found it in every particular as has been represented. It is earlier than the Early Rose, which resembles it very much, being a little lighter and more russetted in color. It is productive and of excellent table quality; more mealy than the Early Rose.

White Elephant. This variety has again given entire satisfaction. The tubers are large and of excellent quality; planted alongside of the Peerless, it produced fully one third more than that variety.

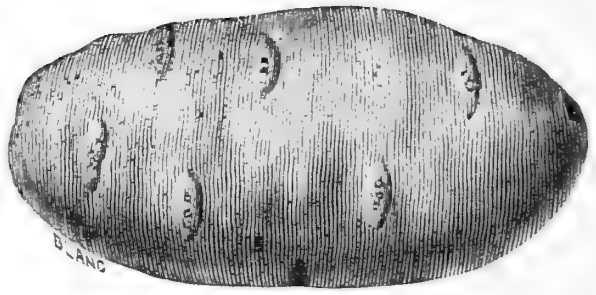
Rural Blush. Second early, tubers roundish flattened, blush skin, flesh slighted with pink. Very dry and of excellent quality. A heavy yielder and good keeper.

Rural New Yorker No. 2. Of recent introduction. This potato is the nearest to perfection of any yet introduced, and exceeds all others in yield. It is of large size, very smooth skin; few eyes, distinct and shallow. Flesh very white, of excellent table quality.

The Thorburn. This is one of the earliest potatoes introduced. It is of unexcelled quality, very productive. It is a seedling of the Beauty of Hebron, which it resembles, but is earlier and more productive.

Early Sunrise. A variety of recent introduction. It is early and fairly productive. The tubers are medium, oblong and solid, uniform in shape and size. They are fit for the table when quite young.

Triumph. An early variety of good quality; cultivated extensively in Tennessee and other Southern localities for shipping to Northern markets. It is of a nice round shape, light red in color; earlier than the Early Rose and more prolific.



Early Sunrise.

THE SWEET POTATO.

Convolvulus Batatas.

The Sweet Potato is next to corn the most important food crop in the South. They are a wholesome and nutritious diet, good for man and beast. Though cultivated to a limited extent on the sandy lands of New Jersey and some of the middle States, it thrives best on the light rich lands of the South, which bring their red and golden fruits to greatest perfection under the benign rays of a Southern sun. It is a plant of a warm climate, a child of the sun, much more nutritious than the Irish Potato on account of the great amount of saccharine matter it contains, and no Southern table should be found without it from the first day of August till the last day of May. Some plant early in spring the potato itself in the prepared ridges, and cut the vine from the potato when large enough, and plant them out; others start the potatoes in a bed prepared expressly for that purpose, and slip off the sprouts as they come up, and set these out. The latter method will produce the earliest potatoes; others who set the vines, say that they make the largest tubers. In preparing the land the soil should be thoroughly pulverized, the ridges laid off about five feet apart, well drawn up and rather flat on top. If everything is ready, and time for planting has arrived, do not wait for a rain, make a paste of clay and cow

manure; in this dip the roots of the slips and press the earth firmly around them. Old slips are more tenacious of life than young ones, and will under circumstances answer best. Watering afterwards, if dry weather continues, of course will be beneficial. Otherwise plant your vines and slips just before or after a rain. Two feet apart in the rows is considered a good distance. The ridges should never be disturbed by a plow from the time they are made until the potatoes are ready to be dug.

Scrape off the grass and young weeds with the hoe, and pull up the large ones by hand. Crab grass is peculiarly inimical to the sweet potato, and should be carefully kept out of the patch. The vines should never be allowed to take root between the rows. Sweet potatoes should be dug before a heavy frost occurs; a very light one will do no harm. The earth should be dry enough to keep it from sticking to the potatoes. The old fashioned potato bank is the best arrangement for keeping them, the main points being a dry place and ventilation.

Varieties generally cultivated in the South.

The Yam. Taking into consideration quality and productiveness, the Yam stands at the head of the list. Frequently, when baked, the saccharine matter in the shape of candy will be seen hanging to them in strings. Skin and flesh yellow and very sweet. Without a doubt the best potato for family use.

Southern Queen. Very similar to the former, but smoother, the tubers having no veins or very few; it is earlier.

Shanghai or California Yam. This is the earliest variety we have, frequently, under favorable circumstances, giving good sized tubers two months after planting the vine. Very productive, having given 300 bushels per acre when planted early and on rich land. Is almost the only kind cultivated for the New Orleans market. Skin dull white or yellow, flesh white, dry and mealy, in large specimens frequently stringy.

There are some other varieties of Sweet Potatoes highly prized in the West, but not appreciated here. The Red and Yellow Nansemond are of a fine quality and productive, but will not sell so well as the California Yam when taken to market. For home consumption they are fine, and deserve to be cultivated.

PUMPKIN.

Potiron (Fr.), Kürbiss (Ger.),

Calabaza (Sp.).

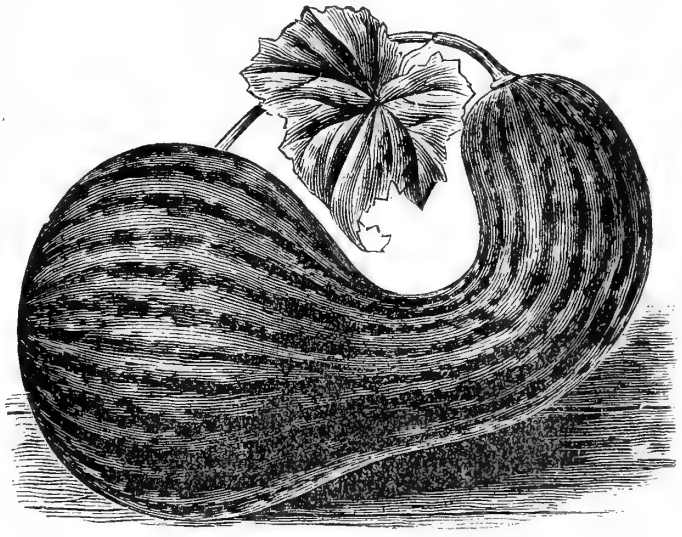
Kentucky Field.
Large Cheese.
Cashaw Crook Neck. (Green Striped.)
Golden Yellow Mammoth.

Are generally grown in the field, with the exception of the Cashaw which is planted in the garden; but great care must be taken not to plant them close to Squashes or Melons, as they will mix and spoil their quality. Plant in hills from eight to twelve feet apart.

Kentucky Field. Large round, soft shell, salmon color; very productive; best for stock.

Large Cheese. This is of a bright orange, sometimes salmon color, fine grained, and used for table or stock feeding.

Cashaw Crook Neck. This is extensively cultivated in the South for table use. There are two kinds, one all yellow and the other green striped with light yellow color. The latter is the preferable kind; the flesh is fine grained, yellow, very sweet, and better than any Winter Squash. It keeps well; it takes the place here of the Winter Squashes, which are very little cultivated. The striped variety has been cultivated here since a century and never was found North or West; since a few years it has been brought out by Northern Seedsmen as **"Japan Pie Pumpkin."** I had this



Green Striped Cashaw Crook Neck.

Golden Yellow Mammoth.

kind grown alongside of the Southern Striped Cashaw and found it one and the same.

Golden Yellow Mammoth. This is a very large Pumpkin. Flesh and skin are of a bright golden color, fine grained and of good quality. I had some brought to the store weighing one hundred to one hundred and fifty pounds, raised on land which was not manured or fertilized.

RADISH.

RADIES, RAVE (Fr.), RADIES, RETTIG (Ger.), RABANO (Sp.).

Early Long Scarlet.
Chartier's Long.
Early Scarlet Turnip.
Golden Globe.
Early Scarlet Olive-shaped.
White Summer Turnip.
Scarlet Half Long French.
Scarlet Olive-shaped, White-Tipped or French Breakfast.
Black Spanish (Winter).
Chinese Rose (Winter).
White Strasburgh.
White California Mammoth.

This is a popular vegetable, and grown to a large extent. The ground for radishes should be rich and mellow. The early small varieties can be sown broad-cast among other crops, such as beets, peas, spinach, or where lettuce has been transplanted. Early varieties are sown in this section the whole year, but during summer they require frequent watering to make them grow quickly. The Golden Globe and White Summer Turnip are best for planting during the summer months. The Half Long Scarlet French is the only red kind raised for the New Orleans market, and all the other cities in the United States taken together do not use as many of that one variety as New Orleans does. I have sold nearly two thousand pounds of the seed per annum for the last fourteen years.

Early Long Scarlet. This is a desirable variety; it is of a bright scarlet color; short top and brittle.

Chartier's Long Radish. A long Radish, described as deep crimson colored at the top, shading off lighter until at the bottom it becomes white.

Early Scarlet Turnip. A small round variety, the favorite kind for family use. It is very early, crisp and mild when young.

Golden Globe. This stands the heat better than the foregoing kinds. It is of an oblong shape, and of a beautiful bright yellow color. It should be sown very thinly. Best adapted for summer and fall sowing. The variety I keep is of the finest strain, and as good as any ever sold.

Early Scarlet Olive-Shaped. This is similar to the Half Long French, but shorter, and not quite so bright in color. It is early and of good quality. Top short.

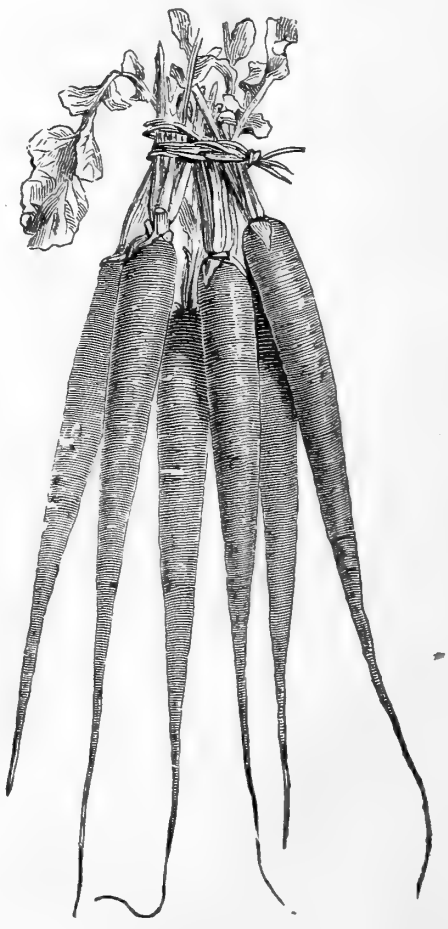
White Summer Turnip. This is a summer and fall variety. Oblong in shape, skin white, stands the heat well, but not much used.

Scarlet Half Long French. This is the most popular Radish for the market. It is of a bright scarlet color, and when well grown, from two to three inches long, very brittle and tender.

Scarlet Olive-shaped. White tipped, or **French Breakfast.** A handsome Radish of the same shape as the foregoing kind, with end and root white. Quite tender.

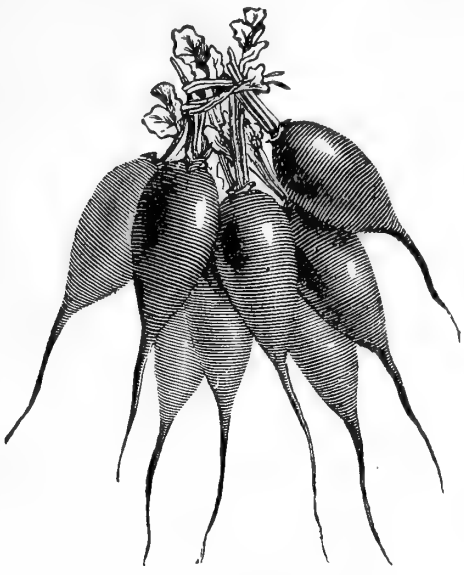
Black Spanish. (WINTER.) This is sown during fall and early winter. It is oval in shape, solid, and stands considerable cold weather without being hurt. It can be sown broad-cast between Turnips, or planted in rows a foot apart, thinned out from three to four inches in the rows.

Chinese Rose. (WINTER.) This is of a half long shape, bright rose color. It is as hardy as the last described kind, not so popular, but superior to the foregoing kind. Consider it the best winter variety,

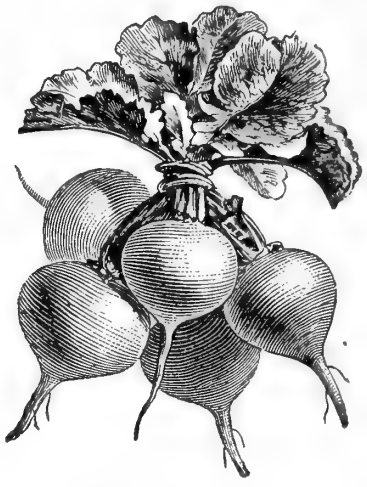


Early Long Scarlet.

Early Scarlet Turnip.



Scarlet Half Long French.



Golden Globe.

White Strasburgh. This variety is of recent introduction, of an oblong, tapering shape; the skin and flesh are pure white, firm, brittle and tender, and has the tendency of retaining its crispness even when the roots are old and large. It is a very good kind for summer use, as it withstands the severe heat, and grows very quickly. The seed can be planted throughout the summer, and fine large roots will be rapidly formed. It is an excellent variety for family use, as well as for the market.

White California Mammoth. This is a winter variety of large size, but can be sown here in early spring. It is the largest of all Radishes, and grows from 8 to 12 inches long, 2 to 3 in diameter.

ROQUETTE.

Roquette (Fr.).

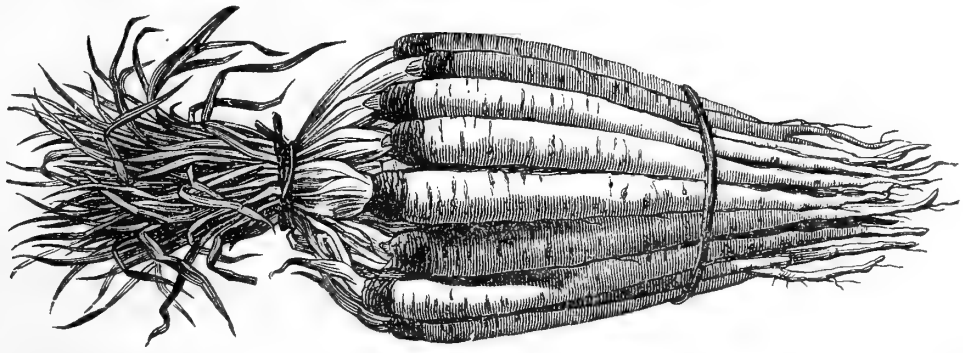
Sown from September to March. It is used as a salad, resembling the Cress in taste.

SALSIFY OR OYSTER PLANT.

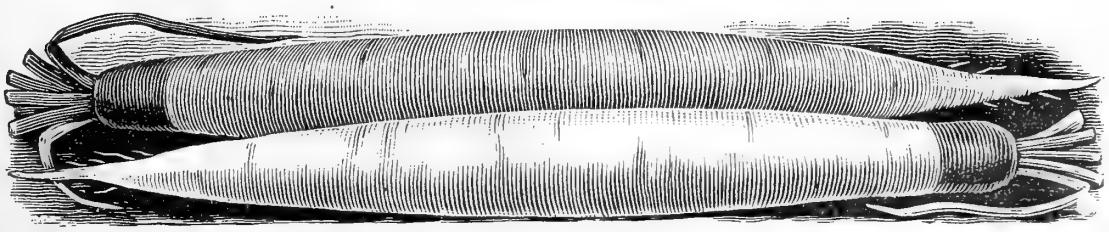
Salsifis, Fr., Haferwurzel (Ger.), Ostra Vegetal (Sp.)

American. | *Sandwich Island* (Mammoth).

A vegetable which ought to be more cultivated than it is. It is prepared in different ways. It partakes of the flavor of oysters. It should be sown in the fall of the year; not later than November. The ground ought to be manured the spring previous, deeply spaded, and well pulverized. Sow in drills about ten inches apart, and thin out from three to four inches in the rows.



American Salsify.



Sandwich Island Mammoth Salsify.

American Salsify. This kind used to be generally cultivated; but since the introduction of the Sandwich Island Mammoth the demand for it has decreased considerably.

Sandwich Island Salsify. (Mammoth.) This is a sort which grows much quicker than the old varieties. It attains a large size; can be called with right mammoth. It is very superior to the old kinds and should be generally cultivated.

SPINACH.

Epinard (Fr.), Spinat (Ger.), Espinago (Sp.).

Extra Large Leaved Savoy.
Broad Leaved Flanders.

A great deal of this is raised for the New Orleans Market. It is very popular. Sown from September to end of March. If the fall is dry and hot, it is useless to sow it, as the seeds require moisture and cool nights to make them come up. The richer the ground the larger the leaves.

Extra Large Leaved Savoy. The leaves of this variety are large, thick and a little curled. Very good for family use.

Broad Leaved Flanders. This is the standard variety, both for market and family use. Leaves large, broad and succulent.

SORREL.

Oseille (Fr.), Sauerampfer (Ger.), Acedera (Sp.).

Planted in drills a foot apart, during the fall of the year, and thinned out from three to four inches in the drills. Sorrel is used for various purposes in the kitchen. It is used the same as Spinach; also in soups and as a salad.

SQUASH.

Courge (Fr.), Kürbiss (Ger.), Calabaza Tontanera (Sp.).

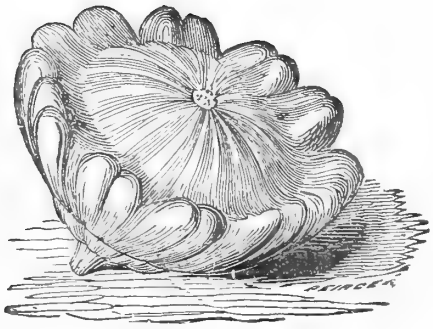
Early Bush, or Patty Pan.
Long Green, or Summer Crook Neck.
The Hubbard.
Boston Marrow.

Sow during March in hills from three to four feet apart, six to eight seeds. When well up, thin them out to three of the strongest plants. For a succession they can be planted as late as June. Some who protect by boxes, plant as soon as the first of February, but it is best to wait until the ground gets warm. When it is time to plant Corn, it is also time to plant Squash.

Early Bush, or Patty Pan. Is the earliest and only popular kind here. All other varieties are very little cultivated, as the Green Striped Cashaw Pumpkin takes their place. It is of dwarfish habit, grows bushy, and does not take much room. Quality as good as any.

Long Green, or Summer Crook-Neck. This is a strong grower, and continues in bearing longer than the first named kind. It is of good quality, but not so popular.

The Hubbard. This is a Winter Squash, highly esteemed in the East, but hardly cultivated here. It is, if planted here, inferior to the Southern Striped Cashaw Pumpkin which can be kept from one season to another, and is superior in flavor to the former kind.



Early Bush or Patty Pan.

Long Green or Summer Crook Neck.

The Hubbard.

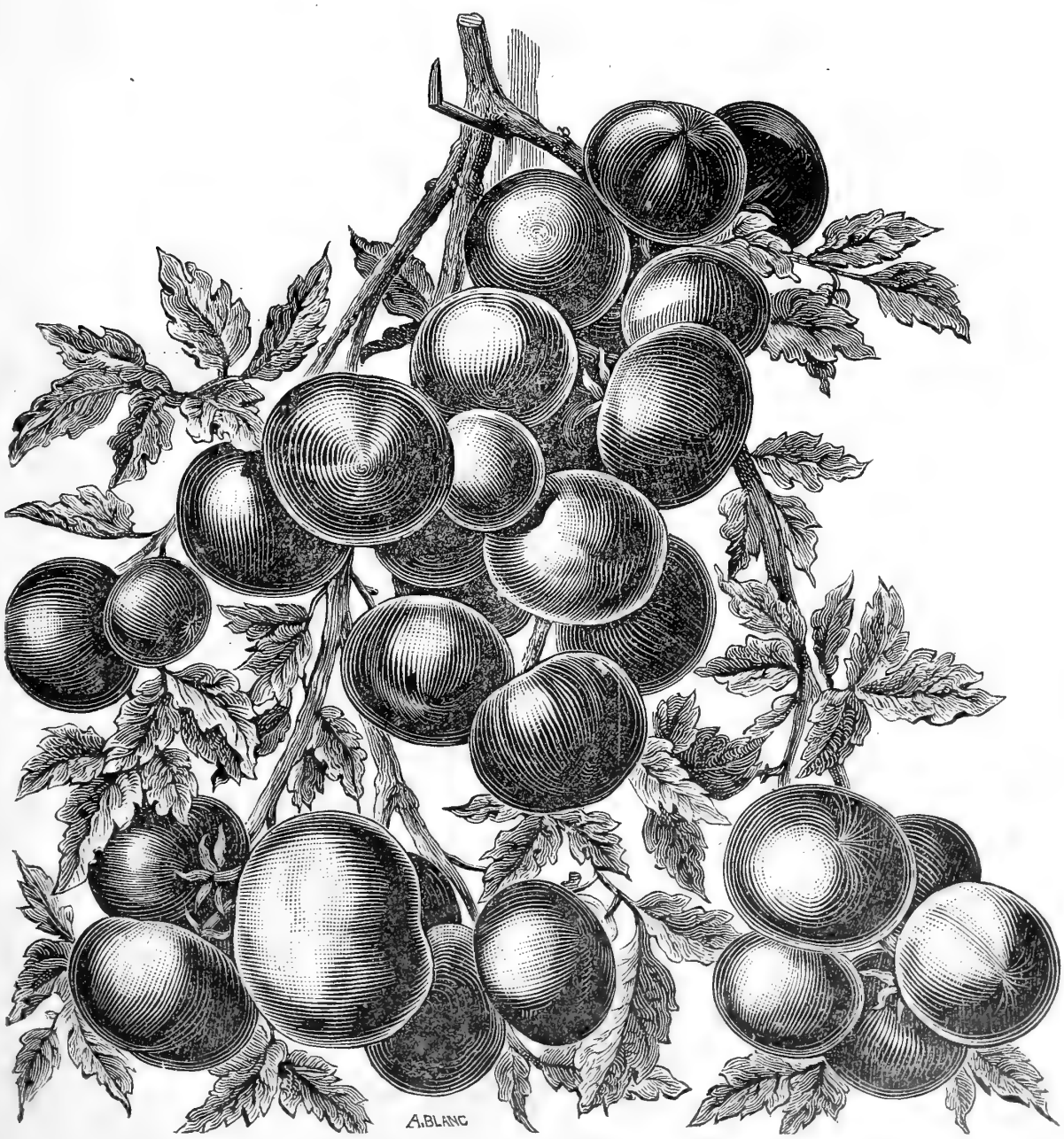
Boston Marrow. Cultivated to a large extent North and East for winter use, where it is used for custards, etc. It keeps for a long time and is of excellent quality, but not esteemed here, as most people consider the Southern grown Cashaw Pumpkin superior to any winter Squash.

TOMATO.

Tomate (Fr.) Liebesapfel (Ger.), Tomate (Sp.).

King of the Earlies.
Extra Early Dwarf Red.
Horsford's Prelude.
Dwarf Champion.
Trophy, (Selected).
Large Yellow.
Acme.
Paragon.
Livingston's Perfection.
Livingston's Favorite.
Livingston's Beauty.

Seed should be sown in January, in hot beds, or in boxes, which must be placed in a sheltered spot, or near windows. In March they can be sown in the open ground. Tomatoes are generally sown too thick and become too crowded when two or three inches high, which makes the plants thin and spindly. If they are transplanted when two or three inches high, about three inches apart each way, they will become short and sturdy, and will not suffer when planted into the open ground. Plant them from three to four feet apart. Some varieties can



King of the Earlies.

be planted closer; for instance, the Extra Early, which is of very dwarfish habit, two and a half feet apart is enough.

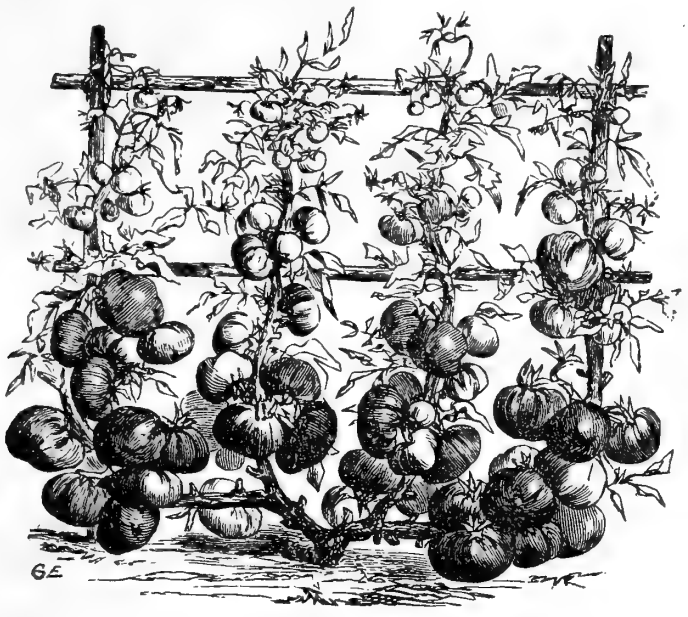
They should be supported by stakes. When allowed to grow up wild, the fruit which touches the ground will rot. For a late or fall crop the seed should be sown towards the latter part of May and during June.

King of the Earlies. This variety was introduced here by me a few years ago. It is very early and productive; color bright red, of good size and quite solid. The vine is medium, stout and branching. The buds appear soon, blossoms as a rule adhere and produce fruit. It is so much earlier than the Livingston varieties, that it should be planted for the first. The latter kind are so handsome in shape, that they will sell better than any other, when the market is once well supplied.

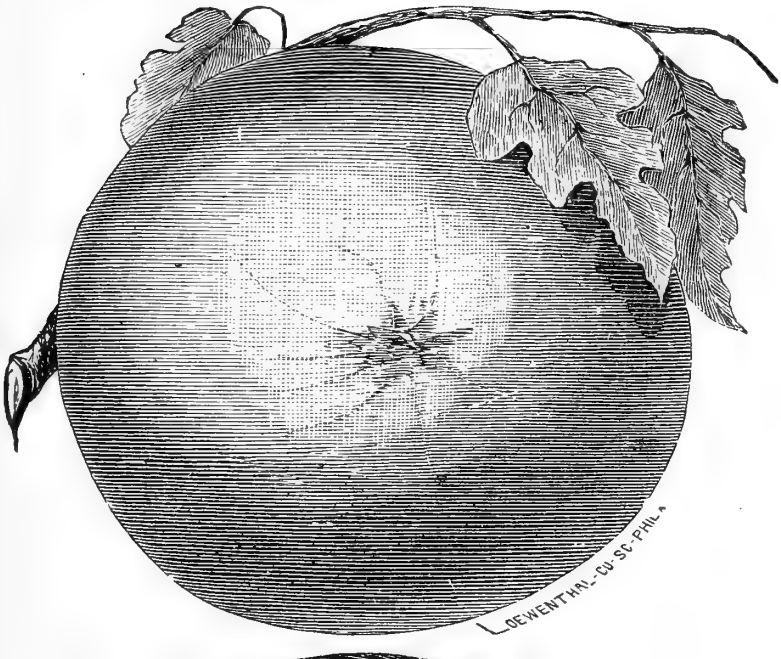
Extra Early Dwarf. This is the earliest in cultivation. It is dwarfish in habit; fruit larger than the following kind, and more flat; bright scarlet in color and very productive. For an early market variety it cannot be surpassed.

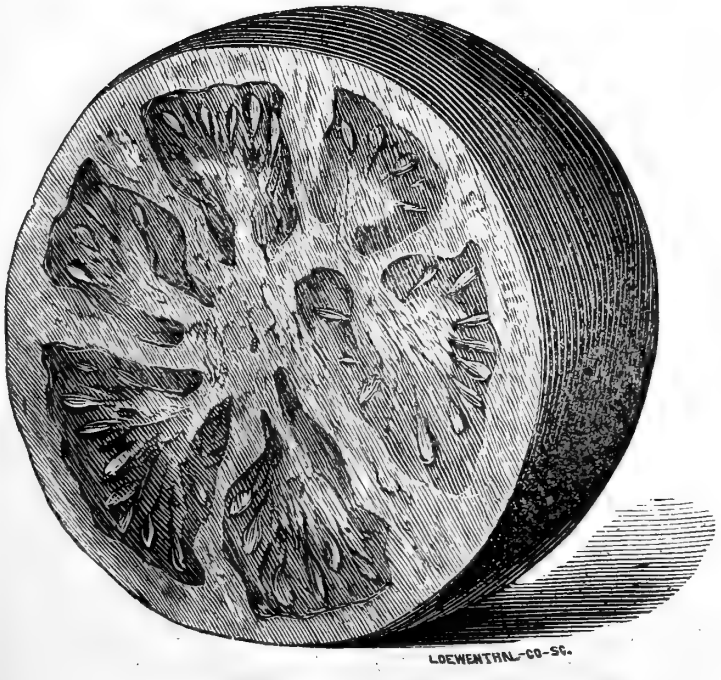
Horsford's Prelude. This is a valuable variety on account of being very early. The skin is very tough and perfectly free from rot. Fruit medium in size. It is of excellent flavor, specially adapted for forcing as well as outdoor culture.

Horsford's Prelude.

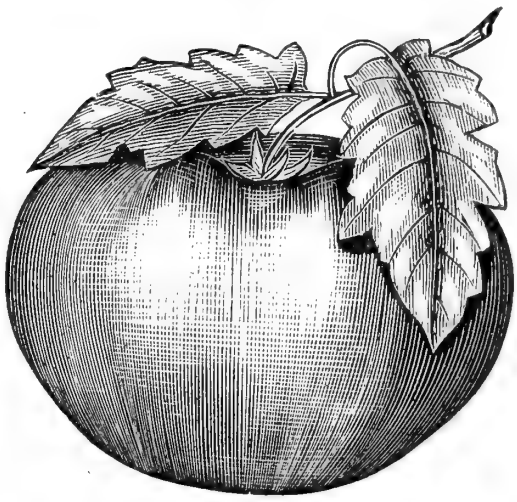


Extra Early Dwarf.





Acme Tomato.



Livingston's Favorite.

Dwarf Champion. This is a distinct kind. The plants grow stiff and upright, and need no support as other kinds. Can be planted closely together, three feet apart. It is early and productive; the fruit resembles the Acme; but is of lighter color, ripens up even and does not crack. When room is an object this sort is recommended.

Early Large Smooth Red. An early kind of medium size; smooth and productive.

Selected Trophy. A very large, smooth Tomato, more solid and heavier than any other kind. Has become a favorite variety.

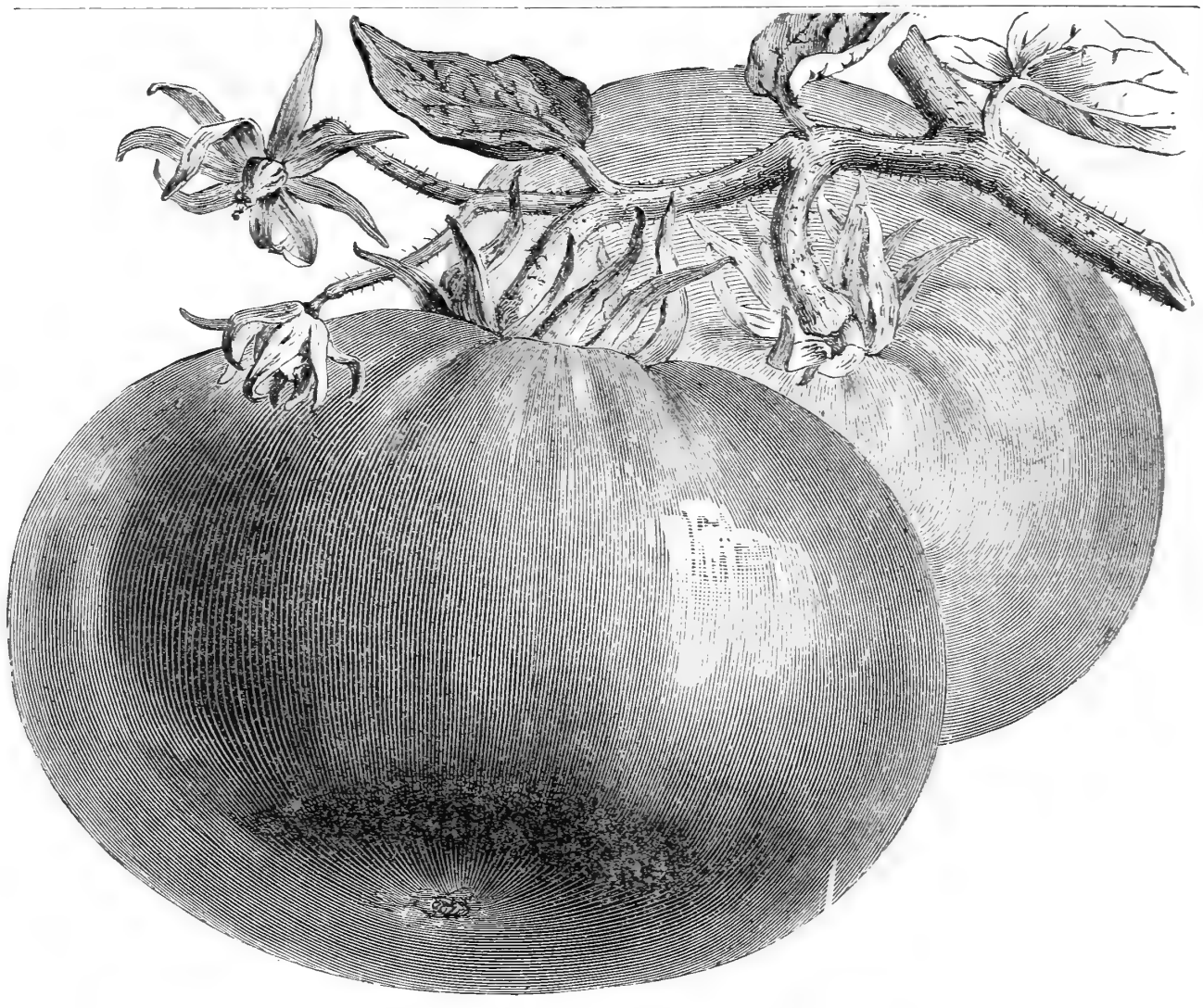
Large Yellow. This is similar in shape to the Large Red, but more solid. Not very popular.

Acme. This is one of the prettiest and most solid Tomatoes ever introduced. It is of medium size, round and very smooth, a strong grower, and a good and long bearer. It is the perfection of Tomatoes for family use, but will not answer for shipping purposes; the skin is too tender, and cracks when fully ripe. Of all the varieties introduced, none has yet surpassed this kind when all qualities are brought into consideration. It does well about here where the ground is heavy.

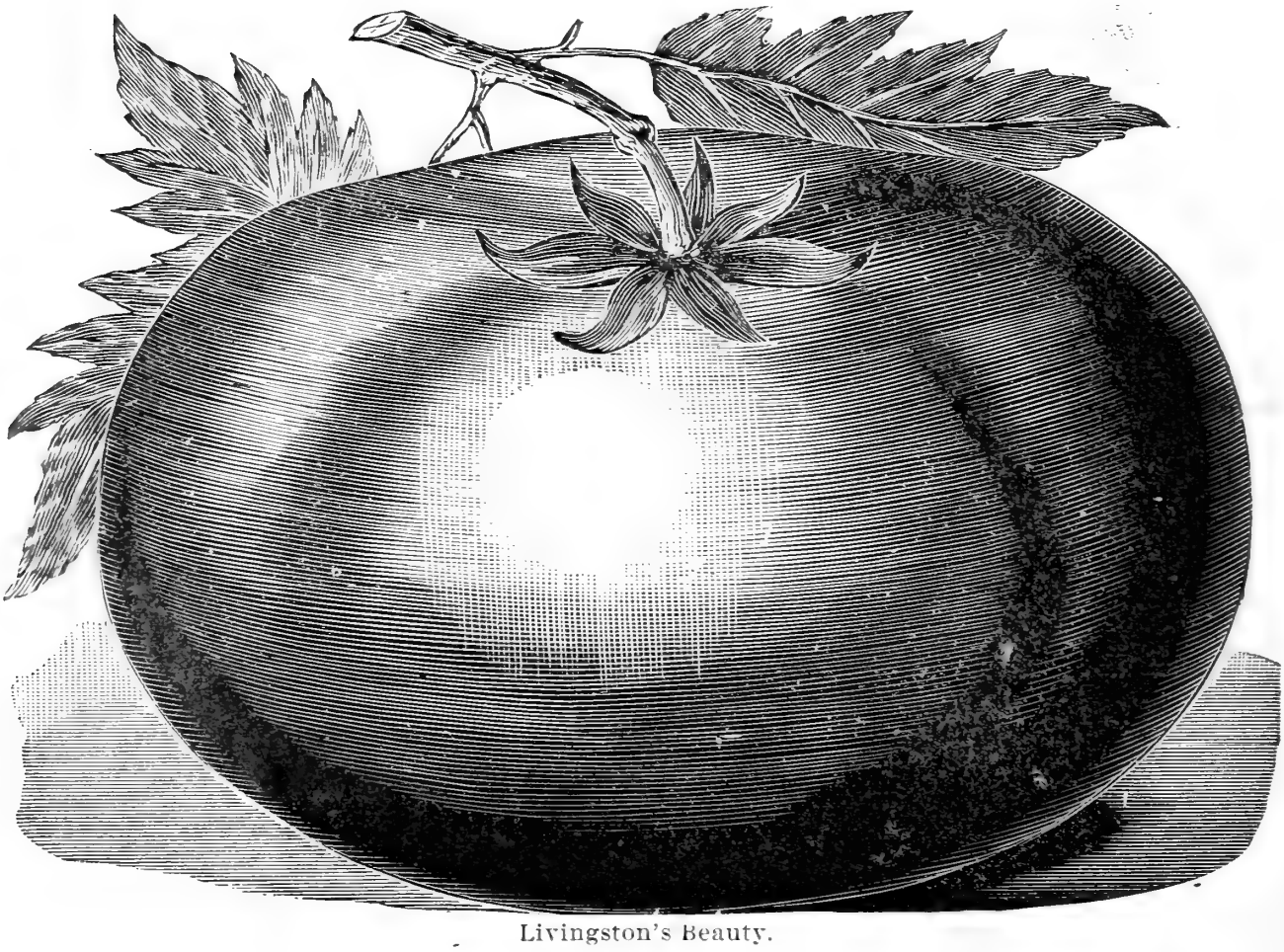
Paragon. This is a very solid variety, of a bright reddish crimson color, comes in about the same time as the Tilden, but is heavier in foliage, and protects its fruit. It is productive and keeps long in bearing. Well adapted for shipping.

Livingston's Perfection. Very similar to the foregoing in shape and color.

Livingston's Favorite. This Tomato was introduced only a few years ago; it is as perfect in shape and as solid as the Acme, but



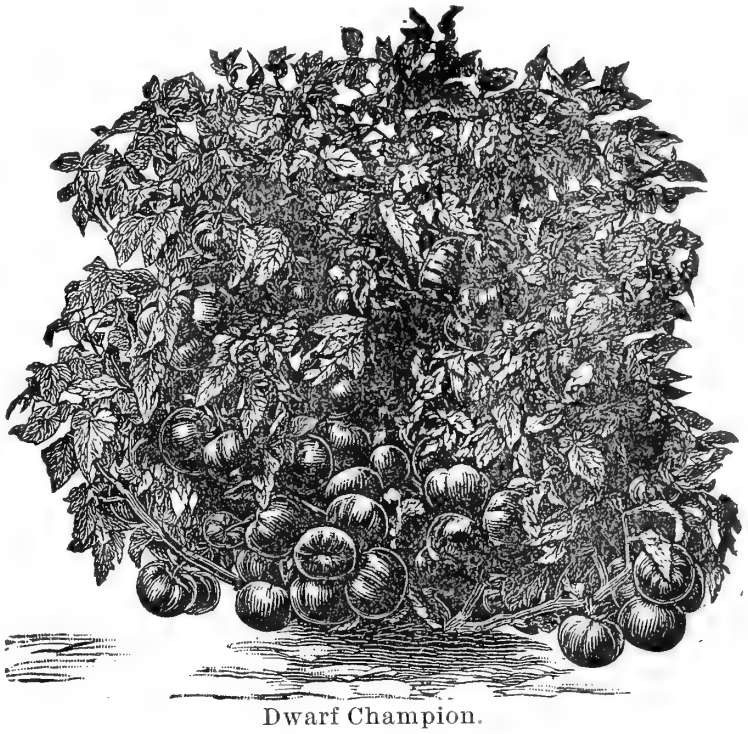
Selected Trophy.



Livingston's Beauty.

much larger, and of a handsome dark red color. I had some sent to me by a customer, and they surely were the finest specimen of tomatoes I ever saw, and were admired by everybody who saw them. They will keep well, and do not crack. It has become the standard variety for this market.

Livingston's Beauty. This variety is of recent introduction. It is quite distinct in color, being a very glossy crimson with a light tinge of purple, (lighter than the Acme). It ripens with the Acme or Paragon, but keeps longer. It is very perfect in shape and does not crack, like some of the thin skinned sorts.

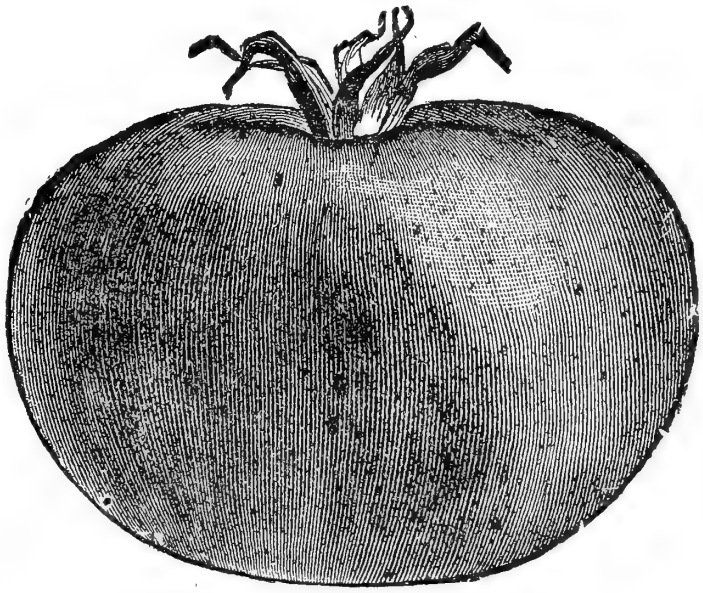


Dwarf Champion.

TURNIP.

NAVET (Fr.), RÜBE (Ger.),
NABO COMUN (Sp.).

Early Red or Purple Top (strap-leaved).
Early White Flat Dutch (strap-leaved).
Purple Top Globe.
Large White Globe.
Pomerian Globe.
White Spring.
Yellow Aberdeen.
Golden Ball.
Amber Globe.
Early Purple Top Munich.
Improved Ruta Baga.
Long Island Purple Top Ruta Baga.
Extra Early White French, or White Egg Turnip.



Paragon.

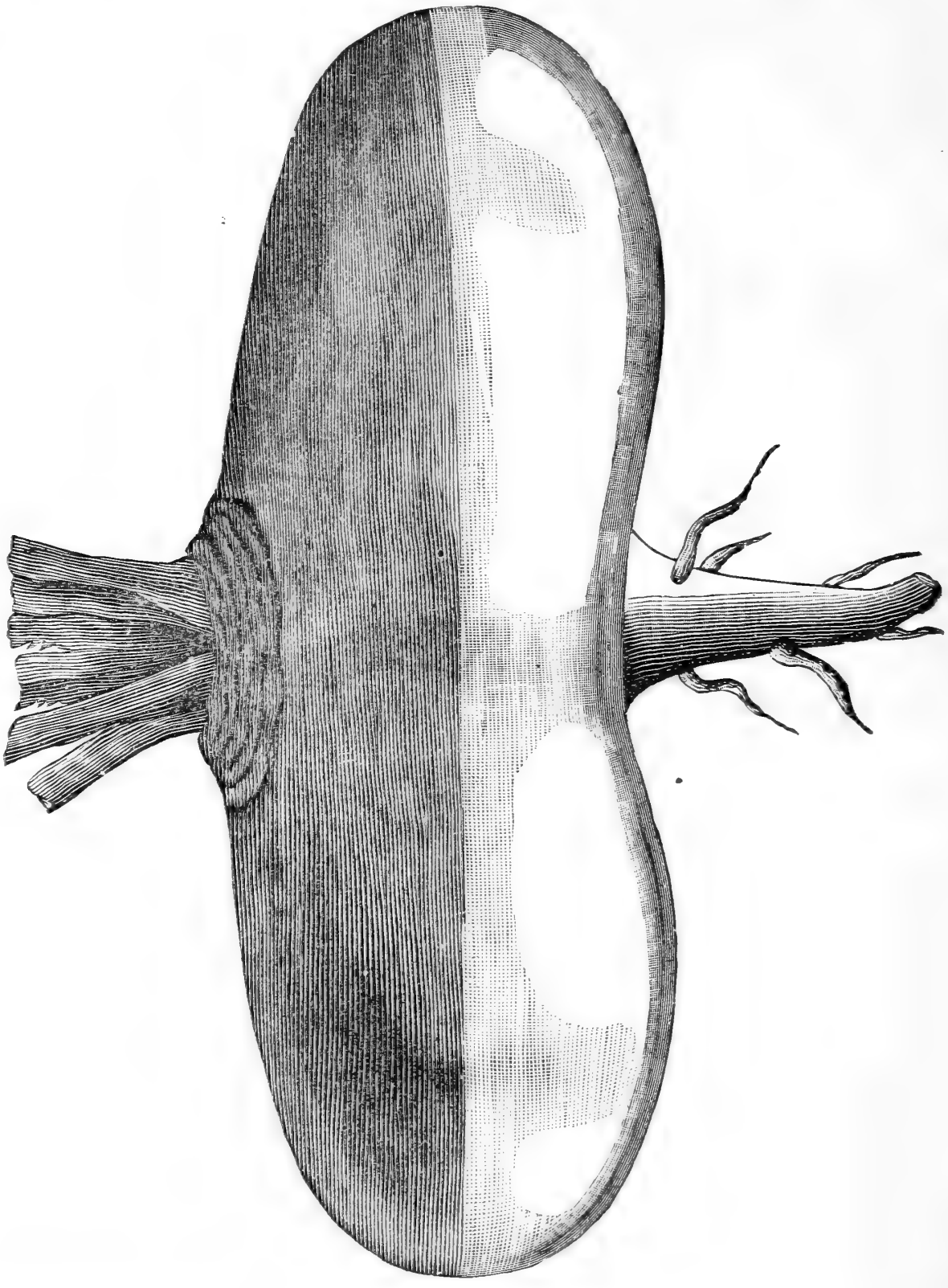
Turnips do best in new ground. When the soil has been worked long, it should receive a top dressing of land-plaster or ashes. If stable manure is used the ground should be manured the spring previous to sowing, so it may be well incorporated with the soil. When fresh manure is used the turnips are apt to become speckled. Sow from end of July till October for fall and winter, and in January, February and March for spring and summer use. They are generally sown broad-cast, but the Ruta Baga should be sown in drills, or rather ridges, and should not be sown later than the end of August; the Golden Ball and Aberdeen not later than the end of September. The White Flat Dutch, Early Spring and Pomerian Globe are best for spring, but also good for autumn.

Early Red or Purple Top. (STRAP-LEAVED.) This is one of the most popular kinds. It is flat, with a small tap-root, and a bright purple top. The leaves are narrow and grow erect from the bulb. The flesh is finely grained and rich.

Early White Flat Dutch. (STRAP-LEAVED.) This is similar to the above in shape, but considered about a week earlier. It is very popular.

Purple Top Globe. Of same shape as the Pomerian Globe, but with purple top. Fine variety for table and for stock. It is not quite so early as the Early Red or Purple Top. I recommend it very highly.

Large White Globe. A very large kind; mostly grown for stock. It can be used for the table when young. Flesh coarse, but sweet; tops very large.



Early Red or Purple Top (Strap-leaved).

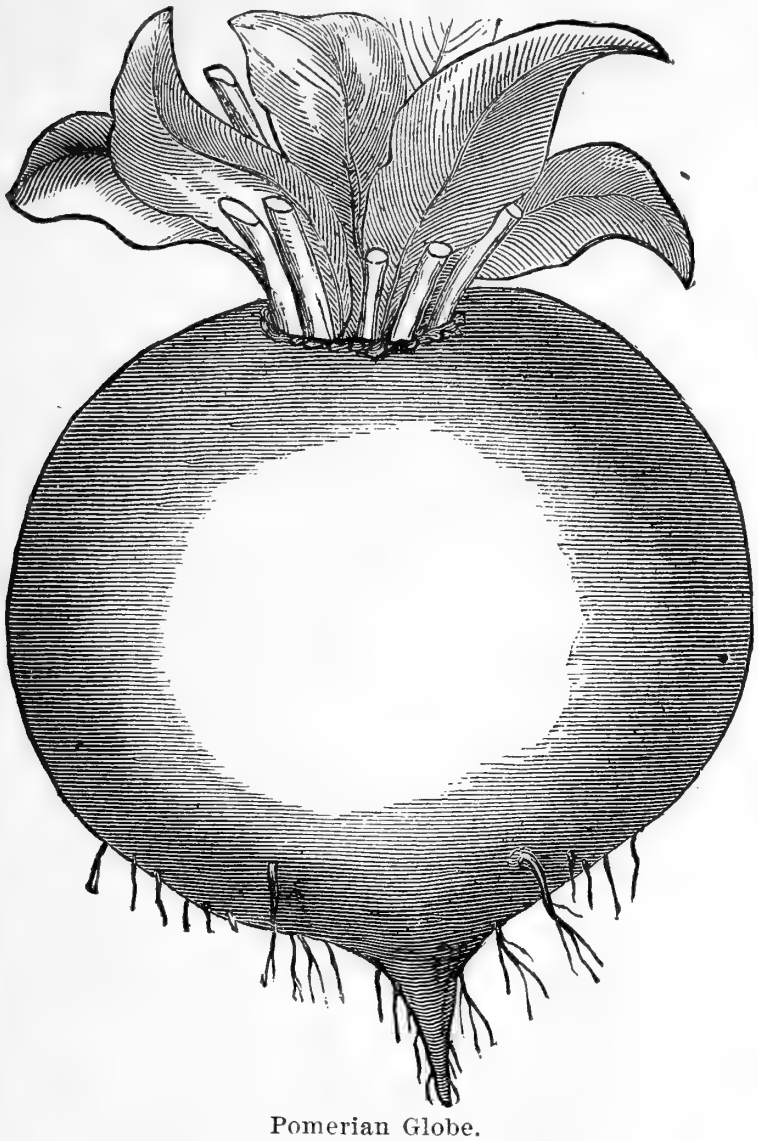
Pomerian Globe. This is selected from the foregoing. It is smoother and handsomer in shape; good to plant early in spring. When pulled before it is too large it is a very salable turnip in the market.

White Spring. This is similar to the White Flat Dutch; not quite so large, but rounder in shape. The tops are larger; it is early, a good quality, and best adapted for spring planting.

Yellow Aberdeen. This is a variety very little cultivated here. It is shaped like the Ruta Baga, color yellow with purple top. Good for table use or feeding stock.

Robertson's Golden Ball, is the best of the Yellow Turnips for table use. It is very smooth, oval in shape, and of a beautiful orange color. Leaves are small. Should be sown in the fall of the year, and always in drills, so that the plants can be thinned out and worked. This kind ought to be more cultivated.

Amber Globe. This is very similar to the above kind.



Pomerian Globe.

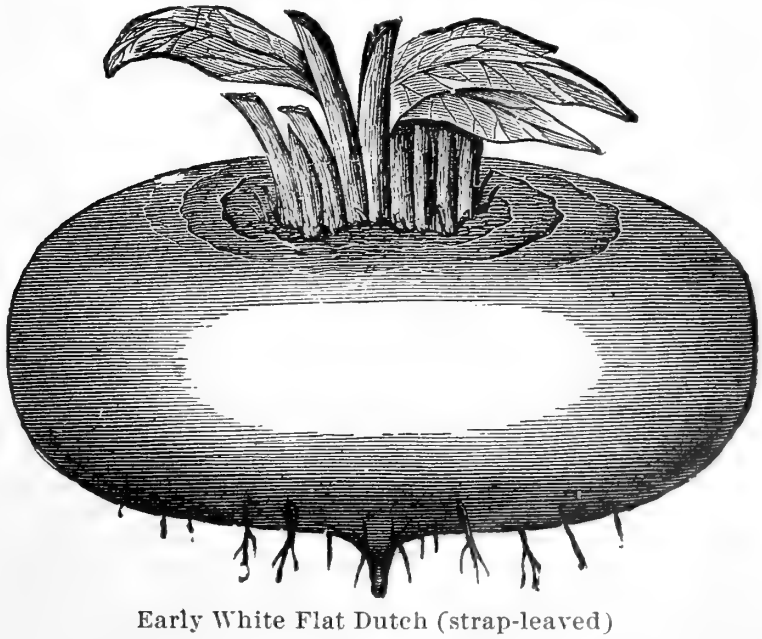
Extra Early Purple Top Munich. A new kind from Germany; flat, with red or purple top; same as the American variety, but fifteen days earlier to mature. It is very hardy, tender, and of fine flavor.

Improved Purple Top Ruta Baga. This is grown for feeding stock, and also for table use. It is oblong in shape, yellow flesh, very solid. Should always be sown in rows or ridges.

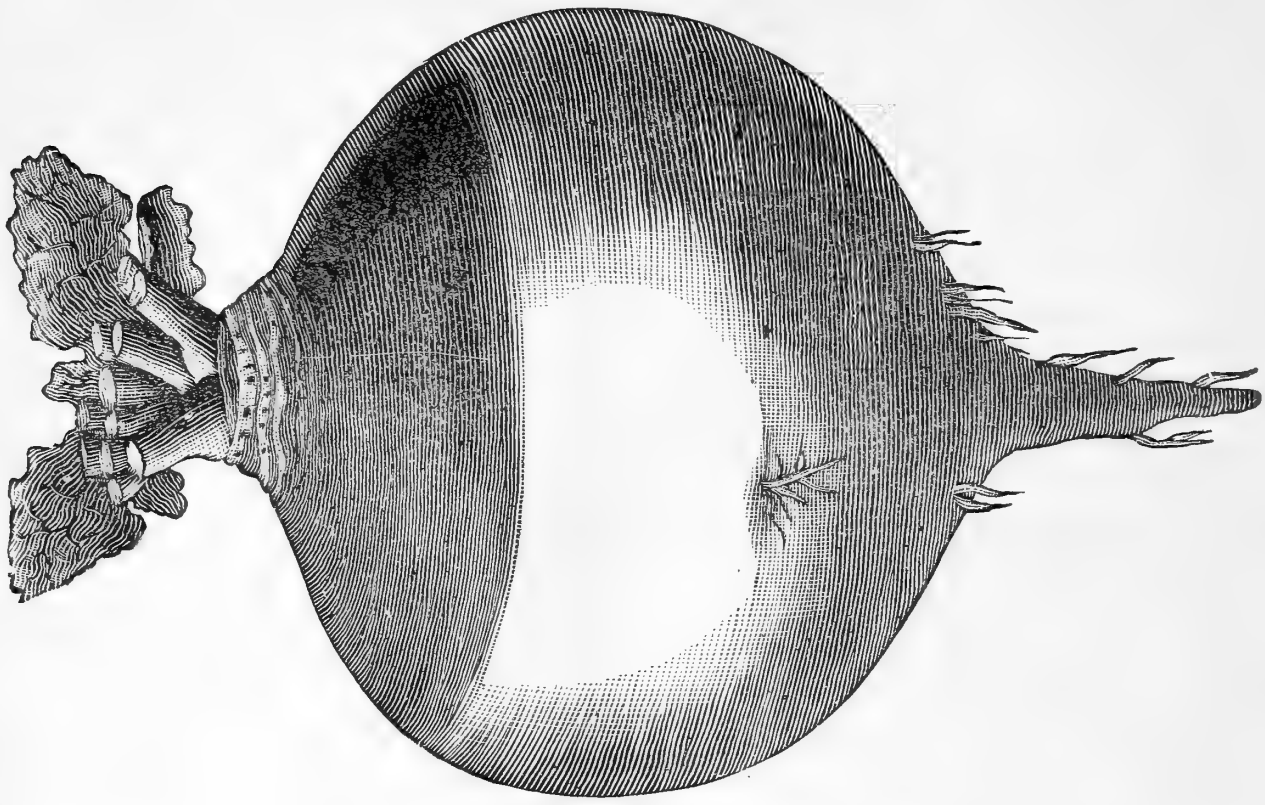
Long Island Purple Top Ruta Baga. This kind is purely of American origin. The root is smoother than the foregoing variety; the flesh is of golden yellow, fine grained and solid; it is earlier to mature. The stock I have is expressly grown for me on Long Island and cannot be surpassed. Cannot be too highly recommended.

Extra Early White French, or White Egg Turnip. This is a lately introduced variety; is said to be very early; tender and crisp. The shape of it is oblong, resembling an egg. Having tried it, I found it as represented, quickly growing, tender and sweet. It will never become a favorite market variety, as only flat kinds sell well in this market. It has to be pulled up soon, as it becomes pithy shortly after attaining maturity.

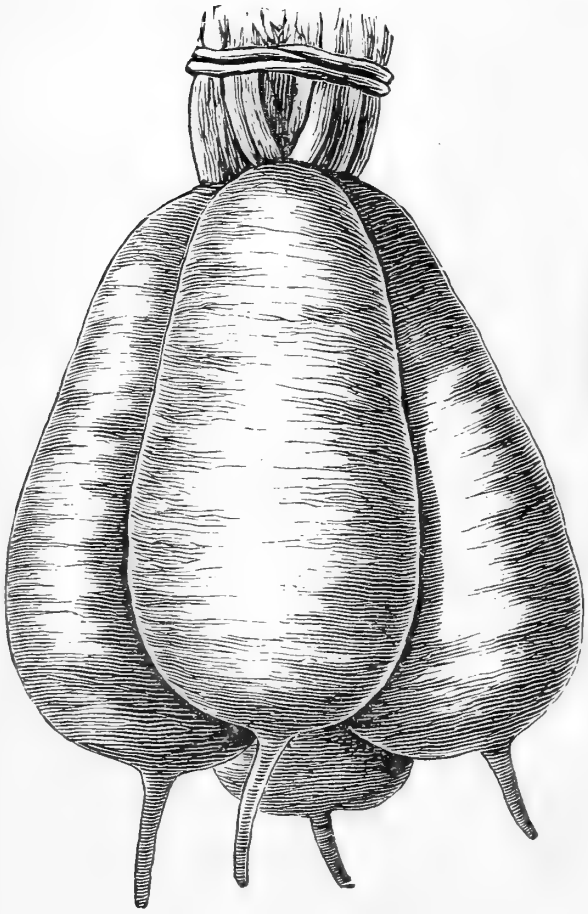
Munich Extra Early Purple Top.



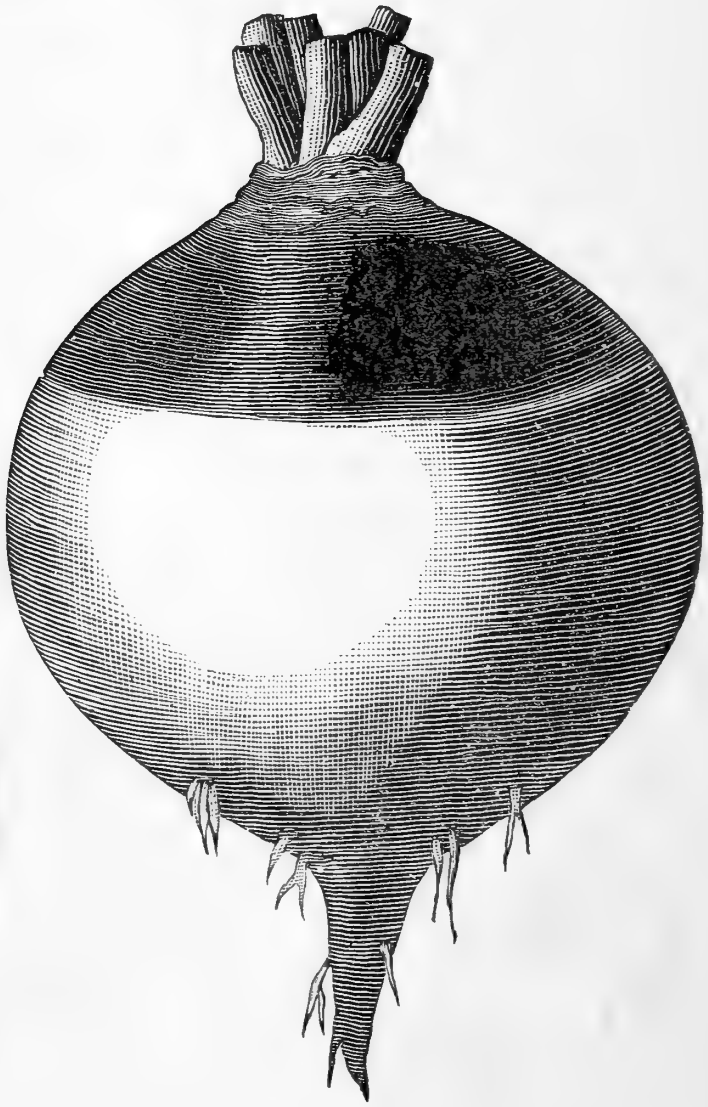
Early White Flat Dutch (strap-leaved)



Purple Top Globe.



Extra Early White French, or White Egg Turnip.



Improved Purple Top Ruta Baga.

DIRECTIONS FOR PLANTING.

The directions given here are for Southern Louisiana. If applied to localities north of here, the time of planting will not be quite as early in the Spring and earlier in the Fall. For instance, the directions given for January will answer for February in the northern part of this State and Mississippi and the southern part of Alabama. In autumn, directions for September can be followed in August. For the middle and southern part of Florida, sowing can be done much earlier in the Spring and in the Fall much later than in Louisiana. In the northern part of Louisiana, Mississippi and Texas, as well as in the southern part of Alabama, very little can be planted in November and December.

JANUARY.

In this month Spinach, Mustard, Carrots, Beets, Turnips and Leeks may be sown, also, early varieties of Radish, and for the last crop the Black Spanish, White California Mammoth and Chinese Rose.

Early varieties of Turnip and Ruta Baga for table use can be sown yet.

Sow Lettuce, Endive, Cabbage, Broccoli. Kohlrabi and early Cauliflower. As the weather is very unstable, it is best to sow in a frame and protect the young plants during severe cold weather.

Cress, Chervil, Parsley and Celery, the latter for cutting, should be sown; also, Roquette and Sorrel.

If the hot-bed has not been prepared already during the previous month, it should be done at once, to sow now Egg Plants, Pepper and Tomatoes; the latter can be sown a little later than the former.

All kinds of Herb Seeds may be sown during this month.

Plant Peas for general crop, such as Black-Eyed and large White Marrowfat, Champion of England, Eugenie, Stratagem, Telephone and other varieties. Towards the end of this month the Extra Early varieties, like First and Best, Little Gem and Alaska may be planted.

Plant Potatoes. The Early Rose should not be planted before the latter part of this month, but Peerless and other second early varieties may be planted after the first.

Divide and transplant Shallots, also set out Cabbage plants sown in November.

Onions if not already transplanted should be hurried now, so that they may have time to bulb. Those who desire to raise Onion sets, should sow the seeds toward the end of this month, as Onion sets which are set out early in the Fall can be sold earlier than those raised from seed.

It is better to sow Onion seed for sets in February, as they generally get too large if sown in this month. Northern seed will not make any sets in our climate.

Asparagus roots should be set out this month; also Red Oats may be sown. I consider this and the German Millet, which ought to be sown in March, the two best annual forage plants for Louisiana.

Cucumber seed can be planted now for forcing. It is best to plant the seed in flower pots first, and when the third leaf is developed, transplant into the hot-bed.

Although Cucumbers for shipping are mostly planted in November and December, if the hot-bed is properly made, those planted in this month will bear better than those planted in November.

Fruit trees of all kinds, such as Pear, Plum, Peach, Apple and Orange should be planted now.

Sow Pecans now. Continue to sow flower seeds during this month, for Spring and early Summer blooming.

FEBRUARY.

All winter vegetables can be sown this month, such as Spinach, Mustard, Carrots, Beets, Parsnips and Leeks. Also, the early varieties of Radishes, White Spring and Early Purple Top Turnip, Swiss Chard and Kohlrabi, Lettuce, Cabbage and Early Cauliflower may be sown. If the weather is favorable and the month of April dry, the latter will succeed well.

Cauliflower and Cabbage Plants should be transplanted. Shallots divided and set out again; also, sow Sorrel, Roquette, Chervil, Parsley, Cress and Celery for seasoning, if not sown already.

All varieties of Peas can be planted in this month, especially the early varieties. The later varieties are best planted in January, but if planted in the early part of February they will do well.

February is the best month to plant the general crop of Potatoes, as on an average they will succeed better if planted during this month than any other.

Sweet Herbs should be planted, the most tender varieties in a frame, and afterwards transplanted into the open ground.

This is the proper month to sow Asparagus seed, also to plant the roots of this vegetable, if not done so previously.

Hot-beds, on account of the changeable weather during this month, require a good deal of attention. Give air when the sun shines and the weather is pleasant, otherwise plants will become spindly and long legged. If too thick, thin them out, so that they may become sturdy.

You may begin to plant Bush Beans as soon as the weather permits; also Cucumbers,

Squash and Melons may be planted, as they often succeed if protected by small boxes covered with glass, as most gardeners do here; there is no risk at all.

At the end of this month, Early Corn can be planted. For market use, Adam's Extra Early and Early White Flint are planted. I recommend the Sugar varieties for family use; but as they are more tender than the preceding, they should only be planted during this month, if the weather is extremely favorable, otherwise it is better to wait until March. They are just as large as the above mentioned varieties, especially Stowell's Evergreen, which is as large as any grown. I consider it the best for family use.

Mangel Wurzel and Sugar Beets should be sown this month for stock food. Sweet potatoes may be put in a bed for sprouting, so as to have early slips.

Plant fruit trees of all kinds, especially Orange and Pecan trees. Pecans may be sown yet during this month to raise trees from.

Sow Flower seed for late Spring and early Summer, such as Zinnia, Balsams in a frame, Torenia, different varieties of Amaranthus, Gomphrenas, etc.

MARCH.

Sow Beets, Radishes and *early* varieties of Cabbage, Kohlrabi, Lettuce, Spinach, Mustard, Carrots, Swiss Chard and Leek; also, Celery for cutting, Parsley, Roquette, Cress and Chervil. Towards the end of this month sow Endive.

Sow the Royal Cabbage Lettuce; also Drumhead and Perpignan. The White Paris Coss is a favorite variety for Spring; the Butterhead will run into seed too quickly, and should not be sown later than the middle of February in this latitude.

Plant now all varieties of Bush and Pole Beans; but for Lima Beans it is better to wait until the end of this month, as they rot easily when the ground is not warm enough or too wet.

Squash, Cucumbers, Melons and Okra can be planted. The remark in regard to Lima Beans holds good also for Okra. Early varieties of Peas may still be planted; set out Tomatoes, Egg Plants and Peppers in the open ground and sow seed for latter crop. Plant Sweet Corn.

Potatoes may still be planted, but all depends upon the season. Some years they do as well as those planted during the previous month. In fact I have seen the finest crop raised from Potatoes which had been planted on the 15th of this month.

Beans are hard to keep in this climate, and therefore, hardly any are planted at this time of the year for shelling purposes. Sweet Potatoes can be planted yet; also, Fruit Trees at the early part of this month, or even later if the season is somewhat retarded.

At the end of this month sow Sorghum, Kaffir Corn and Milo Maize for stock food, also Teosinte. Sow Lespedeza at the beginning of this month.

APRIL.

In this month sow Bush, Pole and Lima Beans, Sweet Corn, Cucumbers, Squash, Melons and Okra. Beets, Carrots, Swiss Chard, Radishes, Lettuce, Mustard, Endive, Roquette, Cress, Parsley, Chervil and Celery for cutting.

Sow Tomatoes, Egg Plants and Peppers.

It is rather late to sow Cabbage seed now, but if sown, the early varieties may be successfully used. Kohlrabi can still be sown, but it is best to sow thinly in drills a foot apart, and thin out to four inches in the rows, instead of transplanting. Towards the end of this month a sowing of the late Italian Cauliflower can be made, as it takes from eight to nine months to mature, and, therefore, should be sown early.

It is always best to make several sowings, so that, in case one should fail, the other may be used.

The Italian Cauliflower is hardier than the French and German varieties. A good plan is to sow the seed in boxes elevated two or three feet above the ground, as it will keep the Cabbage-fly off. The plants should be overlooked daily, and all green Cabbage-worms and other vermin removed.

Plant Sweet Potato Slips for early crop, dig Irish Potatoes planted early, and after well preparing the ground, plant Corn, Beans, Squash, etc., in it.

Sow Cashaw and Field Pumpkins.

German Millet should be sown this month. The ground ought to be well plowed and harrowed. Three pecks of seed is the quantity to be sown per acre. After sowing roll the ground well, and the seed will require no other covering. If no roller is handy, some brush tied together ought to be passed over the ground sown, and this will effectively cover the seed. For hay, it should be cut when in flower.

Every planter should give this forage plant a trial.

MAY.

During this month very few vegetables can be sown. Hardly any of the winter varieties if sown now will do well. The ground should be occupied by growing crops.

Where Potatoes and Onions were taken up, Corn, Melons, Cucumbers, Squash and Pumpkins may be planted.

No Cabbage excepting the Creole can be sown this month, as this is supposed to stand the heat better than other varieties, but it

does not form a solid head and runs into seed as early as the end of November.

Yellow and White Summer Radishes and Endive may be sown.

During the hot weather Lettuce requires a good deal of water, as it will, if neglected, soon become hard and tasteless. In fact, it is combined with a good deal of labor to raise good Lettuce during the Summer months. The Perpignan is the best for Summer use. Okra can still be sown.

Large White Solid Celery may be sown now, but must be well shaded, and if the weather is dry, should be regularly watered.

Late Italian Cauliflower may be sown.

Cow Peas can be planted now between the Corn; or the Crowders in rows, the latter is the best to be used green. If Cow Peas are sown for fertilizing purposes, one bushel per acre should be used and plowed under when the ground is well covered with vines, or sometimes they are left until fall, when they commence to decay, and then plowed down. It is best, however, to plow them down when they have the most foliage, that is whilst they are blooming, as they then contain the most fertilizing properties. I consider Cow Peas the cheapest and most beneficial fertilizer for worn out land.

Sweet Potato slips can be set out yet, taking advantage of an occasional rain; but if it does not rain, they must be watered. As the top of Shallots gets dry, which indicates their being ripe, they are fit to be taken up.

Pull them up and expose to the sun for a few days, and then store away in a dry, airy place, taking care not to lay them too thick, as they are liable to heat.

Lima or Pole Beans can be planted; the Southern Prolific is the best variety for late planting.

Sorghum can be planted yet, and as it resists considerable drought, will do fairly well.

JUNE.

The sowing during this month is similar to the preceding; that is, not a great deal can be sown. The growing crops will require attention as weeds grow fast now.

Corn may be planted for the last supply of roasting ears; also, a few Water and Musk Melons. Cucumbers, Squash and Pumpkins planted during this month, generally do well; but if the weather is hot and dry, they require an abundance of water.

Southern Prolific Pole Beans are the best to plant yet this month, as they stand more heat than any other variety. Continue to set out Sweet Potato Slips.

Sow Yellow and White Summer Radishes; Endive for Salad, also Royal and Perpignan Lettuce.

To sow Lettuce during the Summer months requires a great deal of attention; in fact, it requires more care than most people are willing to bestow.

Before sowing, soak the seeds for half an hour in water, take them out and put in a piece of cloth and place in a cool spot—under the cistern, or if convenient in an ice box. Keep the cloth moist, and in two or three days the seed will sprout. Then sow them. It is best to do so in the evening, and give a good watering.

If the seeds are sown without being sprouted, ants will be likely to carry them away before they can germinate, and the seedsman be blamed for selling seeds that did not grow. This sprouting has to be done from May to September, or, if the weather is warm and dry in the latter month, up to the middle of October.

Should the weather be moist and cool in the fall, it can be dispensed with.

Some late Cabbage for Winter crops may be sown in this month, as the plants are generally easier raised during this than the following months; but I consider this month too early for Cabbage seed, as the plants become too hard and long-legged before they can be transplanted.

Late Italian Giant Cauliflower may be sown yet at the early part of this month; towards the end the Early Giant can be sown. Some cultivators transplant them, when large enough, at once from the seed-bed into the open ground; others plant them first into flower pots, and transplant into the ground later. However, if transplanted at this time of the year, they will have to be shaded for a few days and watered until they have taken a good hold.

Sow Tomatoes for late crop towards the end of this month.

JULY.

Towards the end of this month, plant Pole and Bush Beans. In the early part, sow Tomatoes for the last crop; also, some Corn for roasting ears.

If the weather is favorable, Corn may be planted also for stock food. Cucumbers can be planted for pickling; also, Early Giant Cauliflower, Endive, Lettuce, Yellow and White Summer Radishes.

In new ground some Turnips and Ruta Bagas can be sown, but it is better to wait until next month, as they are apt to become hard and stringy.

After the 15th of this month, Cabbage, such as Frotscher's Superior Large Late Flat Dutch, Improved Drumhead, Crescent City Flat Dutch, Stein's Early Flat Dutch, St. Denis or Chou Bonneuil and Brunswick may be commenced with. The above are the leading kinds.

It is very hard in our climate to say which is the best time to sow, as our seasons differ so much.

Some seasons we have early frosts, other seasons not before January, and Cabbage is most easily hurt by frost when heading up. When the plants are small yet, or half grown, or when they are headed up, they are not so much affected by cold weather. It is therefore necessary to make two or three sowings at different times, so that in case some of the Cabbage is destroyed by frost, the other is coming on. As a general rule plants raised from seed sown in July and August give the best results, they are almost sure to head.

September, in my experience, is the most unfavorable month for sowing Cabbage; as generally plants raised from seed sown in September are ready to head when frost sets in, and therefore, more liable to be hurt. Still there are some exceptions. Some years ago, the seed sown in September turned out best, because we had no frost until very late in the season.

Brunswick is the earliest of the large growing varieties and should be sown in July and August, so that it may be headed up when cold weather sets in. It is more tender than the Flat Dutch and Drumhead. The same may be said in regard to the St. Denis and Improved Early Summer.

All Cabbage require a strong, good soil, but the Brunswick and Flat Dutch in particular.

The ground should be well fertilized, with either stable manure, Cotton Seed Meal or Superphosphate; but I consider Cow Peas planted on the Cabbage land and plowed under, the best and cheapest fertilizer.

The standard varieties, Superior Flat Dutch and Improved Drumhead, should be sown at the end of this month and during the next.

A large quantity of seed must be sown at this time of the year, as it is sometimes very difficult to get a proper stand, and it is always better to have some plants left over than to be short.

It is a very difficult matter to protect the young Cabbage plants from the ravages of the insects, which are, especially after a mild Winter, very plentiful.

Strong Tobacco water or Tobacco dust has been found very beneficial; also Tobacco stems, cut fine and scattered over the ground, will keep them off to some extent. Still sometimes even these remedies will fail.

AUGUST.

During this month gardeners in the South are very busy with sowing and planting. Bush Beans, Extra Early and Washington Peas can be planted; also continue to sow Late Cabbages, Drumhead Savoy, Broccoli, Brussels Sprouts and Kale. Sow Early Italian Cauliflower at the early part of this month. This is the proper time to sow the Half Early Paris and other early varieties.

Sow Parsley, Roquette, Chervil, Lettuce, Endive and Sorrel; but if the weather should be very dry, these seeds have to be frequently watered. It is best to cover Parsley seed with moss or brush, until it begins to come up.

Yellow Turnip and White Strasburg Radish may be sown during this month, and towards the end commence to sow the red varieties, such as Scarlet Turnip, Half Long French and Long Scarlet, also Black Spanish.

Sow Swiss Chard, Mustard and Cress, all varieties of Turnip and Ruta Baga, and also Vienna Kohlrabi.

If not too hot and dry, Beets of all kinds may be put in the ground; but it is better to wait until the following month.

Carrots may be sown in the latter part, if the weather is favorable; but if hot and dry, it is useless to do much, as seeds cannot come up well without being watered.

White Solid, Dwarf Large Ribbed and Perfection Heartwell Celery should be sown now.

Set out Shallots. Red and White Kidney Beans for shelling should be planted at the early part of this month.

Early Rose and other varieties of Potatoes saved from the Spring crop, should be planted early this month for a winter crop; the smallest Potatoes are selected for that purpose and planted whole. Set out Tomato plants for a late crop, if not done so last month.

If Celery plants are set out during this month, they require to be shaded.

SEPTEMBER.

Mostly all the seeds recommended for last month can be sown this month, but some more should be added to them.

In the early part plant Bush Beans, as they will bear before frost sets in. Also plant early varieties of Peas, such as Extra Early, Early Alaska, Washington. All kinds of Radishes, Carrots, Beets, Parsnip, Salsify, Roquette, Chervil, Parsley, Sorrel, Cress, Lettuce, Endive, Leeks, Turnips, Kohlrabi, Broccoli, Early Cauliflower, Kale, Celery, Corn Salad and Mustard can be sown during this month.

Begin sowing Creole Onion seed after the 15th of this month. As this is one of the most important crops, it should not be neglected. Our Planters and Truck Farmers in the neighborhood of our city make their first sowing by the 15th of this month. If the weather is hot and dry, it is necessary to cover the seed-beds with moss, after the seed has been sown; it will keep the seed moist and insure its coming up. As soon as the young plants make their appearance, the moss must be taken off. For main crop the end of this month is the proper time.

Transplant Celery plants in ditches made for that purpose, and if the weather is favorable, set out Cabbage and Cauliflower plants.

If the weather is not too hot and dry, Spinach may be sown, but has to be kept well

watered, otherwise it is impossible to get a stand.

Some Cabbage seed may be sown yet, but Cabbage sown in this month will generally not do as well as seed sown during the previous month.

Set out Shallots, divide and transplant Sorrel; sow Turnip-rooted Celery.

During this month Flower seeds, such as Pansies, Daisies, Sweet Alyssum, Candytuft, Stocks, Phlox, Chinese and Japan Pinks, Aster, etc., can be sown.

OCTOBER.

This is the month when Artichokes should be dressed, the suckers or sprouts taken off and transplanted.

Onion seed can still be sown up to the 10th of this month; but it is better to get it in the ground as soon as possible, so that the plants get large enough before cold weather comes on.

Towards the end of this month, Black Eyed Marrowfat Peas and English Windsor Beans can be planted.

Sow Cabbage, Spinach, Cauliflower, Broccoli, Brussels Sprouts, Kale, Mustard, Swiss Chard, Carrots, Beets, Salsify, Leeks, Corn Salad, Parsley, Roquette, Chervil, Kohlrabi, Radishes, Lettuce, Endive and Parsnip.

Shallots set out previously may be divided and set out again.

Salsify, which does very finely here, must in order to obtain the best results be sown now; it is generally sown too late. It requires a fine mellow ground, which has been deeply spaded, as the size and smoothness of the roots depend upon the preparation of the soil.

Do not manure the beds fresh, but use such lands for Salsify which has been well manured in the spring. At the end of this month some of the Celery which has been planted early may be earthed up. Water it frequently with soap water.

Rye, Barley and Red Oats should be sown for stock food; also Orchard Grass, Red and White Clover, and Alfalfa or Lucerne.

Transplant Strawberry plants; they have to be transplanted every year, as they cannot be left in the same place for several years, as is done North.

Michel's Early and Sucker State are the favorite varieties for this market.

Continue to sow Flower seeds of all spring blooming varieties. Plant Hyacinth, Narcissus, Ranunculus, Anemones, Tulip and Lily bulbs.

NOVEMBER.

During this month continue to sow all varieties of Winter vegetables as during the previous month.

Superior Large Late Flat Dutch and Improved Drumhead Cabbage sown in this month will make fine heads in the Spring, also other late and second early varieties.

Artichokes should be dressed if not done already last month.

Sow Black Eyed Marrowfat and other late varieties of Peas; they are not easily affected by frost as long as they are small, and during this time of the year they will not grow very fast. English Windsor Beans may be planted yet; they are hardy enough not to be hurt by frost.

Hot-beds should be gotten ready now for Cucumbers, manure for same should be looked after; it ought not to be over one month old.

Throw it together in a heap, and when heated, fork it over again, so the long and short manure will be well mixed.

The first vegetables generally sown in hot-beds, are Cucumbers; it is best to start them in two or three inch pots, and when they have two rough leaves, transplant them to their place; two good plants are sufficient under one sash.

Sow Flower seeds of all kinds in boxes and transplant when large enough into open ground.

Plant Hyacinths, Tulips, Narcissus and Jonquills in open ground or flower pots for forcing.

To force Hyacinths and other bulbous rooted plants in flower pots, use light but rich soil, plant in 5 inch pots, so that the top of the bulbs are covered about half an inch.

Give one good watering and bury the pots 6 inches under the ground, until the bulbs are well rooted, which takes from 4 to 5 weeks. When well rooted take the pots out of the ground and gradually expose to the light, when they will soon put out and bloom well.

DECEMBER.

During this month not a great deal is planted, as the ground is generally occupied by growing crops.

Peas for general crop may be planted, some Potatoes could be risked; but on account of cold weather during January and February, it is very uncertain whether they will succeed or not.

Spinach, Roquette, Radishes, Carrots, Lettuce, Endive and some early Cabbage may be sown.

Sow early varieties of Cauliflower, such as Early Erfurt, Le Normand, Half Early and Extra Early Paris in a frame or a sheltered situation in the open ground to be transplanted in February. Of Early Cabbage, sow Early and

Large Early York, Oxheart and Winningstadt.

Sow Tomatoes for forcing in a cooled off hot-bed, the best kinds for that purpose are the Extra Early Dwarf and the Dwarf Champion. The former is really a good acquisition; it is very productive and of good size, and bears the fruit in clusters.

These varieties will only sell for the first, as the fruit is not as large as the Livingston varieties, which come in later.

Prepare ground for Fruit Trees during this month, and towards the end begin to plant some.

Sow Pecans to raise trees from.

TOBACCO SEEDS.

Imported Havana. I imported from one of the principal growers the finest and purest strain of Vuelto Abajo, which is considered the best of the Havana varieties.

Price, 10 cts. per package—40 cts. per oz., $4.00 per lb.

Connecticut Seed Leaf. A well-known American variety.

Price, 10 cts. per package,—25 cts. per oz.,—$2.50 per lb.

SWEET AND MEDICINAL HERBS.

Some of these herbs possess culinary as well as medicinal properties. Should be found in every garden. Ground where they are to be sown should be well prepared and pulverized. Some of them have very fine seed, and it is only necessary, after the seed is sown, to press the ground with the back of the spade; if covered too deep they cannot come up. Early spring is the best time to sow them—some, such as Sage, Rosemary, Lavender and Basil, are best sown in a frame and afterwards transplanted into the garden.

Anise, *Pimpinelle Anisum.*
Balm, *Melisse Officinalis.*
Basil, large and small leaved. *Ocymum Basilicum.*
Bene, *Sesamum Orientale.*
Borage, *Borago Officinalis.*
Caraway, *Carum Carni.*
Dill, *Anethum Graveolens.*
Fennel, sweet, *Anethum Foeniculum.*
Lavender, *Lavendula Vera.*
Marjoram, sweet, *Origanum Mayoram.*
Pot Marigold, *Calendula Officinalis.*
Rosemary, *Rosemary Officinalis.*
Rue, *Ruta Graveolens.*
Sage, *Salvia Officinalis.*
Summer Savory, *Satureja Hortensis.*
Thyme, *Thymus Vulgaris.*
Wormwood, *Artemisia Absinthium.*

GRASS AND FIELD SEEDS.

I have often been asked what kind of Grass Seed is the best for this latitude, but so far I have never been able to answer this question satisfactorily. For hay I do not think there is anything better than the Millet. For permanent grass I have almost come to the conclusion that none of the grasses used for this purpose North and West will answer. Barley, Rye, Red Oats and Rescue Grass will make winter pasturage in this latitude. Different kinds of Clover answer very well during spring, but during the hot summer months I have never found anything to stand and produce, except the Bermuda and Crabgrass, which are indigenous to the South.

Of late years the Lespedeza Striata, or Japan Clover, has been sown extensively, a description of which will be found on page 86.

The Bermuda, in my opinion, is better suited for pasturage than hay, as it is rather short and hard when cured. Having tried Guinea Grass I have come to the conclusion that it will not answer here, from the fact that it will freeze out every year. It will produce a large quantity of hay or green fodder, but has to be resown every spring. The seeds that are raised here are light, and do not germinate freely. To import seed every year is rather troublesome. The Johnson Grass advertised by some as Guinea Grass is not Guinea Grass; it is much coarser, and can hardly be destroyed after having taken hold of a piece of ground. Some are enthusiastic about Alfalfa or Lucerne; others, whose opinion also ought to be respected, say it will not do here. There exists a great difference of opinion in regard to which grass seed is the most suitable for the South.

Red Clover. Should be sown either during fall or early in spring. Six to eight pounds to an acre.

White Dutch Clover. A grass sown for pasturage at the rate of four to six pounds to the acre. Should be sown in fall and early spring.

Crimson Clover. An annual maturing earlier than the red, of which it is perhaps a variety. For description see page 87.

Alfalfa or Chili Clover, or French Lucerne. This variety does well here, but the ground has to be well prepared and deeply plowed. It will not do in low wet ground. Should be sown in the fall of the year, or January and February; eight to ten pounds per acre. This being of special value I refer to the letter written by E. M. Hudson on the subject. (See page 88.)

Kentucky Blue Grass. (EXTRA CLEANED.) Should be sown in dry soil. Two bushels per acre. See page 83.

Meadow Fescue. *Festuca pratensis.* As a pasturage grass I consider this one of the most valuable. It is not affected by dry weather, as its roots penetrate the earth 12 to 15 inches; it is much relished by all kinds of stock on account of its long and tender leaves. It yields a very superior hay when cured. It has been grown very little in this country and is deserving of much more attention. Sow in spring or fall. Two bushels to the acre. In some sections it is called Randall Grass. This should not be confounded with the English Rye Grass, offered by some dealers as the same variety.

Orchard Grass. This is one of the best grasses for pasturing. It grows quickly, much more so than the Blue Grass. Can be sown either in fall or spring. Sow one to one and a half bushels per acre. (See extract from "Farmers' Book of Grasses.")

Rescue Grass. A forage plant from Australia. It grows during winter. Sow the seed in the fall of the year, but not before the weather gets cool, as it will not sprout so long as the ground is warm. Sow 1½ bushels seed to the acre.

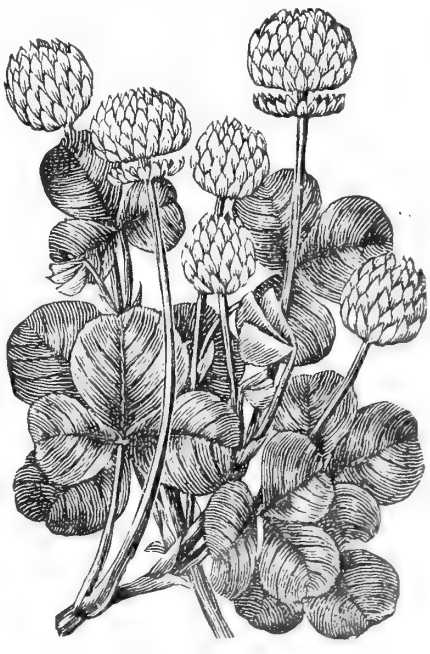
Hungarian Grass. This is a valuable annual forage plant, and good to make hay. Sow three pecks to the acre. It should be cut when in bloom.

German Millet. Of all the Millets this is the best. It makes good hay, and pro-

Alfalfa or Lucerne Clover.

Red Clover.

Meadow Fescue Grass.



White Dutch Clover.

duces heavily. Three pecks sown to the acre broad-cast secures a good stand. Can be sown from April till June, but the former month is the best time. Should be cut when in bloom.

Rye. Is sown during the fall months as late as December, for forage; and for pasturage, during winter and spring.

Barley. Can be sown fall and winter, but requires strong, good soil. Used here for forage during its green state.

Texas Red Rust Proof Oats. It is only a few years since these Oats have come into general cultivation. They are very valuable, and will save a great deal of corn on a farm. The seed of this variety has a reddish cast, a peculiar long beard, and is very heavy. It is the only kind which will not rust in the Southern climate. They can be sown as early as October, but should be pastured down as soon as they commence to joint, till February, When the ground is low, or the season wet, this cannot well be done without destroying the whole crop. During January and February is the proper time, if no pasturing can be done. One to one and a half bushels per acre is sufficient. These oats have a tendency to stool, and therefore do not require as much per acre as common oats. Those who have not already tried this variety should do so.

The following extracts have been taken by permission from the author, Dr. D. L. Phares, from his book, "Farmers' Book of Grasses." It is the most valuable work of the kind ever published in the South, and should be in the hands of every one who takes an interest in the cultivation of grasses.

Copies for sale at publisher's price. Paper covers, 25 cents; Cloth, 35 cents; postage paid.

Orchard Grass.

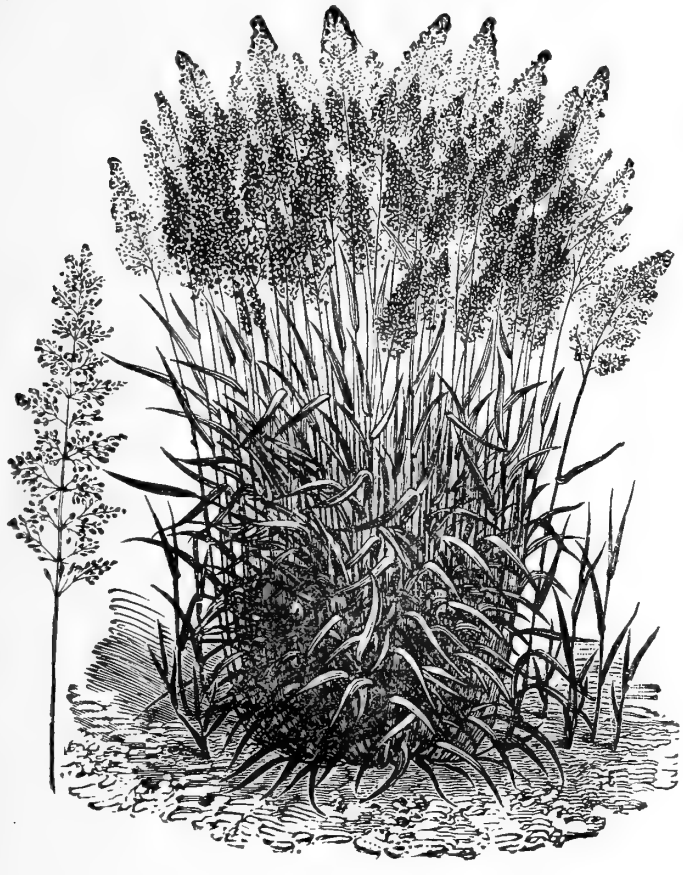
ORCHARD GRASS.

(Dactylis Glomerata.)

Of all the grasses this is one of the most widely diffused, growing in Africa, Asia and every country in Europe and all our States. It is more highly esteemed and commended than any other grass, by a large number of farmers in most countries—a most decided proof of its great value and wonderful adaptation to many soils, climates and treatments. Yet, strange to say, though growing in England for many centuries it was not appreciated in that country till carried there from Virginia in 1764. But, as in the case of Timothy, soon after its introduction from America, it came into high favor among farmers, and still retains its hold on their estimation as a grazing and hay crop.

Nor is this strange when its many advantages and points of excellence are considered. It will grow well on any soil containing sufficient clay and not holding too much water. If the land be too tenacious, drainage will remedy the soil; if worn out, a top dressing of stable manure will give it a good send-off, and it will furnish several good mowings the first year. It grows well between 29° and 48° latitude. It may be moved from two to four times a year, according to the latitude, season and treatment; yielding from one to three tons of excellent hay per acre on poor to medium land. In grazing and as hay, most animals select it in preference among mixtures in other grasses. In lower latitudes it furnishes good winter grazing, as well as for spring, summer and fall. After grazing, or mowing, few grasses grow so rapidly (three to six inches per week), and are so soon ready again for tooth or blade. It is easily cured and handled. It is readily seeded and catches with certainty. Its long, deeply penetrating fibrous roots

enable it to sustain itself and grow vigorously during droughts that dry up other grasses, except tall oat grass, which has similar roots and characteristics. It grows well in open lands and in forests of large trees, the underbrush being all cleared off. I have had it grown luxuriantly even in beech woods, where the roots are superficial, in the crotches of roots and close to the trunks of trees. The hay is of high quality, and the young grass contains a larger per centage of nutritive digestible matter than any other grass. It thrives well without any renewal on the same ground for thirty-five, nay forty years; how much longer, I am not able to say. It is easily exterminated when the land is desired for other crops. Is there any other grass for which so much can be said?



Red Top Grass.

RED TOP GRASS.

(Agrosis Vulgaris.)

This is the best grass of England, the herd grass of the Southern States; not in honor of any man, but probably, because so well adapted to the herd. It is called also Fine Top, Burden's and Borden's Grass. Varying greatly in character, according to soil, location, climate and culture, some botanists have styled it *A. Polymorpha.* It grows two to three ft. high, and I have mown it when four feet high. It grows well on hill tops and sides, in ditches, gullies and marshes, but delights in moist bottom land. It is not injured by overflows, though somewhat prolonged. In marshy land it produces a very dense, strong network of roots capable of sustaining the weight of men and animals walking over it.

It furnishes considerable grazing during warm "spells" in winter, and in spring and summer an abundant supply of nutrition. It has a tendency, being very hardy, to increase in density of growth and extent of surface, and will continue indefinitely, though easily subdued by the plow.

Cut before maturing seed, it makes a good hay and large quantity. It seems to grow taller in the Southern States than it does further North, and to make more and better hay and grazing. Red Top and Timothy, being adapted to the same soil and maturing at the same time, do well together and produce an excellent hay. But the Red Top will finally root out Timothy, and if pastured much it will do so sooner.

Sow about two bushels (28 lbs.), per acre, if alone, in September, October, February, or March; if with Timothy for hay, from 6 to ten pounds; if with other grasses for pasture, 3 to 5 pounds. It is an excellent pasture grass, and will grow almost on any kind of soil.

KENTUCKY BLUE GRASS.

(Poa Pratensis.)

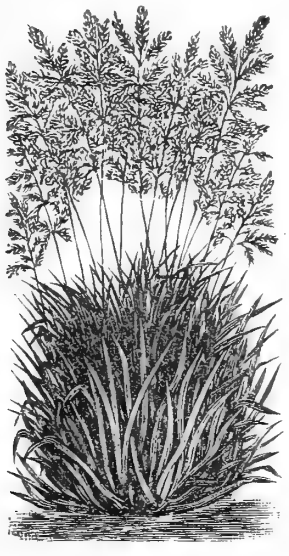
This is also called smooth meadow grass, spear grass, and green grass, all three very appropriate characteristic names. But Blue is a misnomer for this grass. It is not blue, but green as grass, and the greenest of grasses. The *P. Compressa*, flat-stalked meadow grass, wire grass, blue grass is blue, 'the true blue' grass from which the genus received its trivial name.

Kentucky blue grass, known also in the Eastern States as June grass, although esteemed in some parts of America as the best of all pasture grasses, seems not to be considered very valuable among English farmers except in mixtures. It is certainly a very desirable pasture grass however. Its very narrow leaves, two or more feet long, are in such profusion and cover the ground to such depth with their luxuriant growth, that a mere description could give no one an adequate idea of its beauty, quantity and value; that is on rich land. On poor, sandy land, it degenerates sadly, as do other things uncongenially located.

Perennial, and bearing cold and drought well, it furnishes grazing a large part of the year. It is specially valuable as a winter and spring grass for the South. To secure the best winter results, it should be allowed a good growth in early fall, so that the end of the leaves, being killed by the frost, afford an ample covering for the under-part which continue to grow all winter, and afford a good bite

whenever required by sheep, cattle, hogs and horses. In prolonged summer drought it dries completely, so that, if fired, it would burn off clean. But this occurs in Kentucky, where indeed it has seemed without fire, to disappear utterly; yet, when rain came, the bright green spears promptly recarpeted the earth.

With its underground stems and many roots, it sustains the heat and drought of the Southern States as well as those of Kentucky, where indeed it is subjected to severer trials of this kind than in the more Southern States. In fact, it bears the vicissitudes of our climate about as well as Bermuda grass, and is nearly as nutritious.



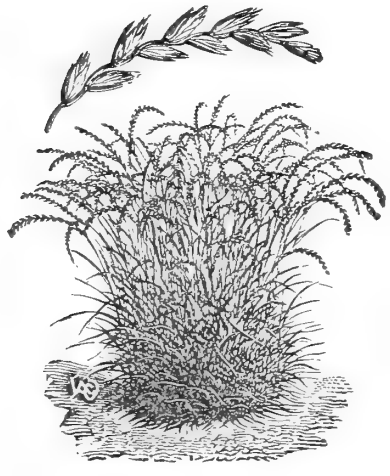
Kentucky Blue Grass.

Blue grass grows well on hill tops, or bottom land if not too wet and too poor. It may be sown any time from September to April, preferable perhaps in the latter half of February, or early in March. The best catch I ever had was sown the 20th of March, on unbroken land, from which trash, leaves, etc., had just been burned. The surface of the land should be cleaned of trash of all kinds, smooth, even; and if recently plowed and harrowed, it should be rolled also. The last proceeding is for compacting the surface in order to prevent the seed from sinking too deep in the ground. Without harrowing or brushing in, many of them get in too deep to come up, even when the surface of the land has had the roller over it. The first rain after seeding will put them in deep enough, as the seeds are very minute, and the spears of grass small as fine needles, and therefore unable to get out from under heavy cover. These spears are so small as to be invisible, except to close examination; and in higher latitudes this condition continues through the first year. Thus, some who have sown the blue grass seed, seeing the first year no grass, imagine they have been cheated, plant some other crop, and probably lose what close inspection would have shown to be a good catch. This, however, is not apt to occur in the Southern tier of States, as the growth here is more rapid. The sowing mentioned above made on the 20th of March, came up promptly, and in three months the grass was from six to ten inches high. One year here gives a finer growth and show than two in Kentucky, and any other State so far North.

Sown alone, 20 to 26 pounds, that is 2 bushels, should be used; in mixtures, 4 to 6 pounds.

ENGLISH OR PERENNIAL RYE GRASS.

(Lolium Perenne.)



English Rye Grass.

This is the first grass cultivated in England over two centuries ago, and at a still more remote period in France. It was long more widely known and cultivated than any other grass, became adapted to a great variety of soils and conditions, and a vast number (seventy or more) of varieties produced, some of which were greatly improved while others were inferior and became annuals. Introduced into the United States in the first quarter of the current century, it has never become very popular, although shown by the subjoined analysis of Way not to be deficient in nutritive matter. In 100 parts of the dried grass cut in bloom were albuminoids 11.85, fatty matter 3.17, heat-producing principles 42,24, wood fibre 35.20, ash 7.54. The more recent analysis of Wolff and Knopp, allowing for water, gives rather more nutritive matter than this.

It grows rapidly, and yields heavy crops of seed, makes good grazing, and good hay. But, as with all the Rye grasses, to make good hay, it must be cut before passing the blossom stage, as after that it deteriorates rapidly. The roots being short, it does not bear drought well, and exhausts the soil, dying out in a few years. In these respects it is liable to the same objections as Timothy. The stem, one to two feet high, has four to six purplish joints and as many dark green leaves; the flexious spiked panicle bearing the distant spikelets, one in each bend.

It should be sown in August or September, at the rate of twenty-five or thirty pounds, or one bushel seed per acre.

TALL MEADOW OAT GRASS.

(Arrhenatherum Avenaceum.)

Evergreen grass in Virginia, and other Southern States, and it is the Tall Oat *(Avena elatior)* of Linæus. It is closely related to the common oat, and has a beautiful open panicle, leaning slightly to one side. "Spikelets two flowered, and a rudiment of a third, open; lowest flower staminate or sterile, with a long bent awn below the middle of the back."—(Flint.)

It is widely naturalized and well adapted to

Tall Meadow Oat Grass.

a great variety of soils. On sandy, or gravelly soils, it succeeds admirably, growing two or three feet high. On rich, dry upland it grows from five to seven feet high. It has an abundance of perennial, long fibrous roots, penetrating deeply in the soil, being, therefore, less affected by drought or cold, and enabled to yield a large quantity of foliage, winter and summer. These advantages render it one of the very best grasses for the South, both for grazing (being evergreen) and for hay, admitting of being cut twice a year. It is probably the best winter grass that can be obtained.

It will make twice as much hay as Timothy, and containing a greater quantity of albuminoids and less of heat-producing principles, it is better adapted to the uses of the Southern farmer, while it exhausts the surface soil less, and may be grazed indefinitely, except after mowing. To make good hay it must be cut the instant it blooms, and after being cut, must not get wet by dew or rain, which damages it greatly in quality and appearance.

For green soiling, it may be cut four or five times with favorable seasons. In from six to ten days after blooming, the seeds begin to ripen and fall, the upper ones first. It is, therefore, a little troublesome to save the seed. As soon as those at the top of the pinacle ripen sufficiently to begin to drop, the heads should be cut off and dried, when the seeds will all thresh out readily and be matured. After the seeds are ripe and taken off, the long abundant leaves and stems are still green, and being mowed make good hay.

It may be sown in March or April, and mowed the same season; but for heavier yield, it is better to sow in September or October. Along the more southern belt, from the 31 ° parallel southward, it may be sown in November and onward till the middle of December. Whenever sown it is one of the most certain grasses to have a good catch. Not less than two bushels (28 pounds) per acre should be sown. Like Timothy, on inhospitable soils, the root may sometime become bulbous. The average annual nutrition yielded by this grass in the Southern belt is probably twice as great as in Pennsylvania and other Northern States.

BERMUDA GRASS.

(Cynodon Dactylon.)

Almost everybody living in this section of the country knows this grass; it is planted as a Lawn grass, and nothing will stand the sun better, or will make a prettier carpet, when kept short, than this grass. It is also very valuable as a pasture and hay grass. It is only lately that I have been able to obtain the seed of this grass, which heretofore had to be propagated by the roots. Six pounds will sow an acre. Should be planted in Spring, but can also be sown later. Under the most favorable circumstances it takes from 20 to 25 days to sprout; requires damp weather and hot sun; but when once up it grows very rapidly.

RESCUE GRASS.

(Ceratochloa australis or Bromus Schraderii.)

It is an annual winter grass. It varies in the time of starting growth. I have seen it ready for mowing the first of October and furnish frequent cuttings till April. Again, it may not start before January, nor be ready to cut till February. This depends upon the moisture and depression of temperature. When once started, its growth, after the successive cuttings or grazings, is very rapid. It is tender, very sweet, and stock eat it greedily. It makes also a good hay. It produces an immense quantity of leaves. On loose soil some of it may be pulled out by animals grazing it. I have seen it bloom as early as November when the season had favored it, and no grazing or cutting were permitted. Oftener it makes little start before January. But whether late or early starting, it may be grazed or mowed frequently, until April, it still will mature seed. It has become naturalized in limited portions of Texas, Louisiana, Mississippi, Alabama and perhaps other States. It is a very pretty grass in all its stages; and especially so when the culms, two or three

Rescue Grass.

feet high, are gracefully bending the weight of the diffuse panicle with its many pedicelled flattened spikelets, each an inch or more long and with twelve to sixteen flowers.

I would not, however, advise sowing this grass on poor land with the expectation of getting a remunerative return. It tillers abundantly under favorable conditions.

JAPAN CLOVER.

(Lespedeza Striata.)

There is now so much enquiry about this plant, so much confusion, lack of knowledge and confounding with or mistaking for it another worthless species, and also the same errors in regard to a small genuine clover, that it is deemed proper to give some correct information on the subject.

HISTORY.

To botanists this plant has been known for many generations in its native habitat in China and other eastern parts of Asia. Finding its way to Japan it encountered congenial climate and soil, and rapidly spread over the entire country occupying all waste places, which it has continued to possess and improve for much more than a century. Here, as on the continent it was of dwarfish habit and received a name indicative of the fact.

Finally a few seeds, arriving in the United States, germinated, contested a few feet of soil with other native and exotic plants that had long pre-occupied the land.

It gained strength and increased in yield of seed till becoming somewhat abundant, it commenced its westward invasion, simultaneously extending its conquests northward and southward, firmly holding all conquered territory. Since 1870 its strides westward have been immense. It now extends from the Atlantic seaboard across the Mississippi, and its out-posts are pushed far towards the western border of Texas.

Denuded, soil-less hill tops, sandy plains, gravelly slopes, bottoms and banks of washes and gullies, pine thickets, open woods, fields, dry and damp soils, all seem as if specially created for its home. It seizes upon all with equal facility.

It maintains its dwarfish habit on sands, gravels and other spots too poor to produce any other vegetation, densely covering the surface with its green robe and affording delighted live stock with delicious nutritious grazing for four to eight months of the year. But on richer soils it doffs the dwarf and dons the tree-style, justifying the American name of "bush-clover," sending its long tap root deep down in the subsoil and its stem two to three feet up into the light and air, with its many branches thickly set with leaves, inviting tooth and blade.

It attains here on rich or medium soil, protected from live stock, a magnitude that could not have been imagined by one seeing it in its far eastern home. It takes possession not only of unoccupied land and pine thickets, but grows among sedges, grasses, briers and weeds, completely eradicating many species of noxious grasses and weeds. It subdues even broom grass and holds equal contest with Bermuda grass; in some localities one yielding, in other localities the other succumbing, while in other spots both maintain equal possession; or one year one may seem to rule, and the next year the other.

VALUE.

On sands, gravels, or denuded clay hill tops no other plants known to me is so valuable for grazing. Taking a succession of ten years, the same assertion would not be far out of the way for rich lands while few forage plants on these would yield so much or so valuable hay.

The analysis of red clover gives 16 per cent. albuminoids and 41 carbohydrates. The average of two analyses of Japan clover gives 15.85 albuminoids and 56 carbohydrates, placing it above red clover in nutritive value. It is

SUPERIOR TO OTHER FORAGE PLANTS

in several important particulars not generally observed by the careless stock-man. 1. The growing plant contains less moisture than any other very valuable forage plant with perhaps a single exception. Hence we never hear of animals having hoven or bloat or scours from eating this plant as when they have free access to red clover, peas and many grasses. 2. We have never yet found on the Japan Clover any fungous growths which are so common on other plants as to cause many deaths annually among animals grazing on them or fed with the hay. 3. Heavy grazing for a few weeks destroys the clovers, lucerne and most of the grasses, while this plant may be grazed however closely, whether the season be wet or prolonged drouth prevail, without damage. 4. There is less difficulty of ob-

Japan Clover.

taining a catch with this plant than most others. The seed may be scattered on bare, poor, barren ground, rich soil, among weeds and dead grass, or in March on small grain sown the previous autumn or winter and a catch will be obtained. 5. The grain being harvested when ripe does not injure the Lespedeza; which is ready for the mower through September and October. 6. It is more easily cured than the clovers, pea vines and many grasses. 7. It does not lose the foliage in curing as do clovers, peas and some other plants. 8. It furnishes good grazing from May, some years last of March till killed by frost in October or November.

PRODUCT OF HAY.

On medium to good land it ranges from one to three tons per acre; and this may be obtained after having during the summer harvested from the same land a good crop of grain and straw.

QUALITY.

Some of our farmers who have been mowing Lespedeza striata for five to ten years, regard it as the soundest, best, most wholesome and palatable hay they ever used. These mowings have ranged from two to three hundred tons on single farms in one season. Yet no complaint as to quality, or relish of animals for it, or as to its nutritive value and good effect on the stock has ever reached us. Those who have used it longest and in largest quantities and kept animals—cattle, sheep, horses and mules—in best condition commend it most. We have now before us a beautiful sample of this hay from Louisiana, being from a crop of perhaps 300 tons mowed last autumn.

SEEDING.

A measured half bushel of seed per acre may be sown broad-cast the first week in March south of parallel 32° of latitude, a few days later as we proceed northward for each degree or two. Sown in the Fall or Winter it springs up, but freezes often throw it out and destroy it. As already stated, it germinates and grows well on land in any condition, if the surface is not so loose as to let the seed sink too deep. When land has been prepared for or sown in grain, the winter rains put it in about the best condition for growing this plant for heavy crops of hay.

All our remarks on this plant, as found in our Southern States, are based on what we have seen and learned of it in a belt lying between 30½° and 34° of latitude.

The only

COMPLETE PROOF

of the value of a forage plant is found in the concurrence of chemical analysis and the observation and experience of the stockman. When the relish of an animal for the forage is keen, the health preserved and improved, growth promoted, a maximum quantity of excellent beef or mutton or pork, and, if superior milk and butter are obtained, we certainly have an admirable food plant. The judgment of the cow, the convictions of the farmer arising from his experiences independent of, and indeed in utter ignorance of any chemical analysis, confirming the decisions of the chemist, gives us the best of all evidences of the value of forage. And all these we have in this case. Japan clover is also a great

AMELIORATOR AND FERTILIZER.

Its abundant long tap-roots decaying render the soil porous and leave in it much nitrogenous material and humus. It releases and brings up from the subsoil valuable plant food; the ashes containing nearly 40 per cent. potash, 29.60 oxide lime, 7.82 sulphuric acid, 7.54 phosphoric acid—all most valuable elements in plant life and growth. Soils are thus renovated, slopes prevented from washing, gullies filled, moisture solicited and retained, atmospheric fertilizers gathered and garnered; bald, barren wastes covered with living green to fill the stomach, delight the eye and cheer the heart.

It should have been stated that this plant has eradicated over large areas the much detested helenium or bitter weed, which so often damages the flavor of the milk of cows eating it while grazing. It is believed that it exterminates also two or three plants that are fatally poisonous to cattle and horses.

For price see price list.

BURR CLOVER.

(Medicago Maculata.)

This variety of clover was brought from Chili to California, and thence to the States, under the name of California Clover. It is often taken for Lucerne, which name is wrongly applied. The Burr Clover has only two or three yellow blossoms in each cluster, while Lucerne has many blue blossoms in an elongated head. It furnishes good grazing from February till April or May. It is good for grazing and hay. As there is no way for removing the seeds from the pods of spotted medic, it is necessary to sow the burr like pods, say one half bushel per acre. The planting should be done early in Fall, so the pods may have time to rot and release the seeds. Should be covered very lightly.

CRIMSON CLOVER.

(Trifolium Incarnatum.)

Although this annual, which belongs to a warm climate, has not been tried in Louisiana to any extent, I should recommend to do so. It is, as by the reports of Experiment Stations of North Carolina and other States, an excellent clover, productive for one or two mowings, which should be done when young yet, as it becomes hard and woody if allowed to mature.

As it is a native of the southern part of

Europe and successfully cultivated in the South of France and Germany, it should be well adapted to our climate and therefore be worth cultivating. I would advise to give it a trial.

In the Southern States Crimson Clover should be sown in the months of October or November, however it can be sown as late as January and February with success, and will produce a fine crop yet.

It will take from 8 to 10 pounds to sow an acre.

LETTER ON "ALFALFA."

Having received many inquiries on the culture of Alfalfa, I reprint the following letter written by E. M. Hudson, Esq., a close observer on the subject, to give information thereon.

Villa Friedheim,

Mobile County, Ala., September 7th, 1878.

Mr. R. Frotscher, New Orleans, La.:

Dear Sir:—Your letter of the 3rd inst. has just reached me, and I cheerfully comply with your request to give you the results of my experiments with *Lucerne or Alfalfa*, and my opinion of it as a forage plant for the South.

I preface my statement with the observation that my experiments have been conducted on a naturally poor, piney woods soil (which would be classed as a sandy soil, varying in depth from six inches to one foot). But I have good red clay subsoil, which enables the soil to retain the fertilizers applied to it, thus rendering it susceptible of permanent enriching.

Three years since, when my attention was first directed to Alfalfa, I sought the advice of the editor of the *Journal of Progress*, Professor Stelle, who informed me that, after attempting for several years to cultivate it, he had desisted. He stated that the plant, at Citronelle, in this county, died out every summer, not being able to withstand the hot suns of our climate. Discouraged, but not dismayed, I determined to test the matter on a small scale at first. Having procured some seeds in March, 1876, I planted them on a border in my garden, and gave neither manure nor work that season. The early summer here that year was very dry; there was no rain whatever from the first of June to the 23d of July, and from the 2d of August to the 15th of November not a drop of rain fell on my place. Yet, during all this time, my Alfalfa remained fresh, bloomed, and was cut two or three times. On the 1st of November I dug some of it to examine the habit of root growth, and to my astonishment found it necessary to go twenty-two inches below the surface to reach anything like the end of the tap roots. At once it was apparent that the plant was, by its very habit of growth, adapted to hot and dry climates. It is indeed a "child of the sun."

Encouraged by this experiment, in which I purposely refrained from giving the Alfalfa any care beyond cutting it occasionally, last year I proceeded on a larger scale, planting both spring and fall, as I have done again this year, to ascertain the best season for putting in the seed. My experience teaches that there is no preference to be given to spring sowings over those of autumn, *provided* only, there be enough moisture in the soil to make the seed germinate, which they do more quickly and more surely than the best turnips. Two winters have proved to me that the Alfalfa remains green throughout the winter in this latitude, twenty-five miles north of Mobile, and at an altitude of 400 feet above tide-water. Therefore I should prefer fall sowing, which will give the first cutting from the 1st of March to the 1st of April following. This season my first cutting was made on the 1st of April; and I have cut it since regularly every four or six weeks, according to the weather, to cure for hay. Meanwhile a portion has been cut almost daily for feeding green, or soiling. Used in the latter way (*for under no circumstances* must it ever be pastured), I am able to give my stock fresh, green food, fully four weeks before the native wild grasses commence to put out. I deem it best to cut the day before what is fed green, in order to let it become thoroughly wilted before using. After a large number of experiments with horses, mules, cattle and swine, I can aver that in no instance, from March to November, have I found a case when any of these animals would not give the preference to Alfalfa over every kind of grass (also soiled) known in this region. And while Alfalfa makes a sweet and nutritious hay eagerly eaten by all kinds of stock, it is as a forage plant for soiling, which is available for at least nine months in the year, that I esteem it so highly. The hay is easily cured, if that which is cut in the forenoon is thrown into small cocks at noon, then spread out after the dew is off next morning, sunned for an hour, and at once hauled into the barn. By this method the leaves do not fall off, which is sure to be the case if the Alfalfa is exposed to a day or two of hot sunshine.

It has been my habit to precede the Alfalfa with a clean crop—usually Ruta Bagas—after which I sow clay peas, to be turned in about the last of July. About the middle of September or later I have the land plowed, the turn-plow being followed by a deep subsoil-plow or scooter. After this the land is fertilized and harrowed until it is thoroughly pulverized and all lumps broken up. The fertilizers employed by me are 500 lbs. fine bone-dust (phosphate of lime) and 1000 lbs. cotton seed hull ashes per acre. These ashes are very rich in potash and phosphates, containing nearly 45 per cent. of the phosphate of lime—the two articles best adapted to the wants of this plant. I sow all my Alfalfa with the Matthews' Seed Drill, in rows 10 inches

apart. Broad-cast would be preferable, if the land was perfectly free from grass and weeds, but it takes several years of clean culture to put the land in this condition; sowing in drills is practically the best. No seed sower known to me can be compared with the Matthews' Seed Drill. Its work is evenly and regularly done, and with a rapidity that is astonishing; for it opens the drill to any desired depth; drops the seed, covers and rolls them, and marks the line for the next drill at one operation. It is simple and durable in its structure, and is the greatest labor-saving machine of its kind ever devised for hand work.

When my Alfalfa is about three inches high, I work it with the Matthews' Hand Cultivator. First, the front tooth of the cultivator is taken out, by which means the row is straddled and all the grass cut out close to the plant; then the front tooth being replaced, the cultivator is passed between the rows, completely cleaning the middles of all foul growth. As often as required to keep down grass, until the Alfalfa is large enough to cut, the Matthews' Hand Cultivator is passed between the rows.

Alfalfa requires three years to reach perfection, but even the first year the yield is larger than most forage plants; and after the second it is enormous. The land must, however, be made *rich* at first; a top-dressing every three years is all that will thereafter be required. The seed must be very lightly covered, and should be rolled, or brushed in, if not sowed with Matthews' Seed Sower.

Whenever the plant is in bloom it must be cut; for if the seed be left to mature, the stems become hard and woody. Also whenever it turns yellow, no matter at what age, it must be cut or mowed; for the yellow color shows the presence of some disease, or the work of some insect, both of which seem to be remedied by mowing promptly. My experience leads me to the conclusion that fully five tons of cured hay per acre may be counted on if proper attention be given to deep plowing, sub-soiling, fertilizing and cleanliness of the soil. These things are indispensable, and without them no one need attempt to cultivate Alfalfa.

In conclusion, I will remark that I have tried the Lucerne seed imported by you from France, side by side with the Alfalfa seed sent me by Trumbull & Co., of San Francisco, and I can not see the slightest difference in appearance, character, quantity or quality of yield or hardiness. They are identical; both have germinated equally well, that is to say, perfectly.

In closing, I can not do better than refer you to the little treatise of Mr. C. W. Howard, entitled: "A Manual of the Grasses and Forage Plants at the South." Mr. Howard, among the very first to cultivate Lucerne in the South, gives it the preference over all other forage plants whatever. My experience confirms all that Mr. Howard claims for it. Certainly, a plant that lasts a generation is worthy of the bestowal of some time, patience and money to realize what a treasure they can secure for themselves. I confidently believe that in years from this date the Alfalfa will be generally cultivated throughout the entire South.

I am respectfully yours,

E. M. HUDSON,
Counsellor at Law,
20 Carondelet Street, New Orleans.

LETTER ON THE VALUE OF THE RYE CROP.

The following letter is from a clipping of the *Southern Stockman and Farmer*, published at Starkville, Miss., October 15, 1892.

Value of the Rye Crop.—The letter below was written to Mr. Richard Frotscher, of New Orleans, the well known seeds man, by Mr. H. Wilkinson, manager of Poplar Grove Plantation, Port Allen, E. Baton Rouge Parish, La.

My Dear Sir:—In reply to your inquiry as to our success with Rye during the past five years, I would say, that we are very much pleased with it. Its great value for a winter pasturage cannot be too highly commended, and we believe it would be much more extensively planted, were the benefits to be derived from a winter pasture more generally considered. Failures to get a good stand of this grain are frequently reported, but if a thorough investigation could be made as to the cause of these failures, we believe that want of proper preparation of the land would be the prime reason. We have never failed to get a full stand from 1½ bushels to the acre, planted at time between the 10th of September and 20th October, and we believe could be successfully planted later, but would not be grown enough to turn stock on at the time our native grasses begin to dry up, which in this latitude is usually about November 15th. Its germination was much delayed by the extreme drought of last fall (1891), but after the first shower, near the end of October, it sprung up uniformly, and at the end of November it was ready for pasturage.

If the date for planting can be fixed, we would advise that plowing the land be deferred until that time, October 20th, as during the long spell of dry weather we are apt to have during the fall, freshly plowed land is apt to bake rapidly and become very cloddy. Everything ready, we would advise that the land be deeply plowed, harrowed at once, and the sower or seeder immediately follow the harrow. The covering should follow at once for two reasons: 1st, to prevent the seed from being picked uy by birds, and, 2nd, to get them in moist land. The covering should not be effected with an ordinary harrow, but should be done with a drag made of two

boards fitted to two or more cross pieces in the reverse position of weather boards on a house. This inexpensive implement dragged over the land crushes small clods, covers the seed sufficiently, and levels the ground very uniformly, giving it good surface drainage, and preventing the washing away of seed by small trenches or gulleys.

We have paid little attention to any of the spring or summer grasses, as our native Bermuda, Crab Grass, White Clover and Pea vines afford good summer forage and pasturage. Nothing that we have tried has been as satisfactory as the Rye for winter pasturage, and we will not plant anything else for that purpose. Any planter who has from 25 to 100 mules to feed will find their condition from December 1st to April 1st much improved by a few hours grazing each week on a Rye patch from 5 to 20 acres.

The Butter plate both in the fullness and color of its contents offers the highest testimonials by its appearance to those whose lands and means limit them to an area not measured by acres.

We cannot speak of the relative merits of Northern and Southern grown seed, as we have not used any excepting those supplied by you, and we do not know where they came from. Confident that they were the best, we have planted every year with uniformly good results. Any further information we can give on this subject will always be at your disposal. With kindest regards and wishes for a prosperous business season, followed by a bountiful harvest to your patrons. H. WILKINSON.

DESCRIPTIVE LIST

OF THE DIFFERENT VARIETIES OF THE SORGHUM FAMILY

SUITABLE FOR THE SOUTHERN STATES.

Amber Sorghum.

Sorghum is planted for feeding stock during the spring and early summer. For this purpose it should be sown as early in spring as possible, in drills about two to three feet apart; three to four quarts per acre. It makes excellent green fodder.

As a forage plant for early cutting, to be fed to stock, I do not think that anything is equal to the Amber Sorghum, such as I have been selling for years, imported from Kansas. After several cuttings, the branching varieties of Sorghum, also called Millo Maize, may be preferable, but more so for seed than forage. —The Teosinte will give more fodder than any of the Sorghums. Some varieties not before described and rather new here are the following:

Yellow Millo Maize, or Yellow Branching Dhouro, grows same as the White Branching kind. The only difference exists in the size of the seed, which is twice the size of the white variety. It is said to be somewhat earlier; seeds planted in April will ripen seed in July. On account of its branching habit this grain should be planted in four or five foot rows, and two to three feet in the drill, according to the strength of the land, two plants in a hill. The cultivation is like corn.

Price, 15c. per lb.; postage extra; 8c. per lb. by mail—15 lbs., $1.50 by Express or Steamer.

KAFFIR CORN.

This is a variety of Sorghum, non-saccharine, and distinctly differing in habit of growth and other characteristics from all others of that class. The plant is low, stocks perfectly erect, the foliage is wide, alternating closely on either side of the stalks.

It does not stool from the root, but branches from the top joints, producing from two to four heads of grain from each stalk. The heads are long, narrow and perfectly erect, well filled with white grain, which at maturity is slightly flecked with red or reddish brown spots. Weight, 60 lbs. per bushel.

The average height of growth on good strong land, 5½ to 6 feet; on thin land, 4½ to 5 feet. The stalk is stout, never blown about by winds, never tangles, and is always manageable, easily handled. A boy can gather the grain heads or the fodder. The seed heads grow from 10 to 12 inches in length, and product of grain on good land easily reaches 50 to 60 bushels per acre.

It has the quality common to many Sorghums of resisting drought. If the growth is checked by want of moisture, the plant waits for rain, and then at once resumes the processes, and in the most disastrous seasons has not failed so far to make its crop. On very thin and worn lands, it yields paying crops of grain and forage, even in dry seasons in which corn has utterly failed on the same lands.

The whole stalk, as well as the blades, cures into excellent fodder, and in all stages of its growth is available for green feed, cattle, mules and horses being equally fond of it, and its quality is not surpassed by any other known variety. If cut down to the ground two or more shoots spring from the root, and the growth is thus maintained until checked by frost.

The Kaffir Corn may be planted in the latter part of March, or early in April. It bears earlier planting than other Millets or Sorghums. It should be put in rows not over three feet apart, even on best land, and it bears thicker planting than any other variety of Sorghum; should be massed in the drill on good land, for either green or forage purposes, and also on thin land, if forage mainly is desired. No plant can equal it for quality and quantity of grain and forage on thin lands. Use 3 to 5 lbs. of seed per acre. Price of seed, 10c. per lb.; postage extra, 8c. per lb. by mail; lots of 10 lbs. for 75c.

TEOSINTE.

(*Reana luxurians.*)

This is a forage plant from Central America. It resembles Indian Corn in aspect and vegetation, but produces a great number of shoots 3 to 4 yards high; it is perennial, but only in such situations where the thermometer does not fall below freezing point. Cultivated as an annual, it will yield a most abundant crop of excellent green fodder.

Considering the Teosinte a superior forage plant, the following extract of a letter from Mr. Charles Debremond, of Thibodeaux, La., will give additional light on the cultivation of same.—In describing his experience with Teosinte, he advises planting the seed in February, so as to have the plants up early in March, as it takes some 14 or 20 days for the seed to germinate. He prefers planting in rows, as giving a heavier crop than when in hills, and as its growth during the first month is very slow, he gives it a good hoeing for its first cultivation, using only the plow thereafter.

He also advises cutting the stalks for green food when about 4 feet high, and specially recommends cutting them close to the ground, as tending to make a much heavier second growth than when cut higher. His horses, mules and cattle eat the stalks with great avidity, leaving no part unconsumed, and prefer it much to green Indian Corn or Sorghum. For Price, see Price-List.

DHOURO, OR EGYPTIAN CORN.

(*Sorghum vulgare.*)

This is a well-known cereal. It produces a large quantity of seed, of which fowls and animals are fond. Can also be sown broad-cast for soiling, or in drills for fodder and seed. If sowed in drills, one peck of seed per acre is ample. If sown broad-cast, one bushel per acre. For grain, the stalks should not be nearer than 10 inches in the drill, but if to be cut repeatedly for soiling, it is better to sow quite thickly in the hills. Seed should not be sown too early, and covered from one-half to one inch. If too much rain in the spring, the seed will not come well; they require more heat than the other Sorghums. Rural Branching Sorghum or Millo Maize produces the seed heads upright in a vertical position, while the others are drooping. The seeds are smaller, but will keep longer than the other varieties. The stalk grows very large and produces a good many large leaves. It suckers and tillers more and more the oftener it is cut. It exceeds greatly in yield of green fodder any of the familiar fodder plants, except the "Teosinte."—It should be planted exclusively in drills four feet apart, 18 to 20 inches in the drills.

BROOM CORN.

Can be planted the same as corn; put the hills closer together in the row. Six quarts will plant an acre.

JOHNSON GRASS.

(*Sorghum halapense.*)

This has been called Cuba grass, Egyptian grass, Means grass, Alabama and Guinea grass, etc.

It seems pretty well agreed now, however, to call it Johnson grass, and leave the name Guinea grass for the *Panicum jumentorum*, to which it properly belongs.

It is true that in Mr. Howard's pamphlet, as well as in many periodicals and books, and in letters and common usage, this grass has been far more generally called Guinea grass than the true Guinea grass itself, thus causing vast confusion. It is, therefore, assuredly time to call each by its right name. Johnson

grass is perennial and has cane-like roots, or more properly, underground stems, from the size of a goose-quill to that of the little finger. These roots are tender, and hogs are fond of and thrive on them in winter. The roots literally fill the ground near the surface, and every joint is capable of developing a bud. Hence the grass is readily propagated from root cutting. It is also propagated from the seeds, but not always so certainly; for in some localities many faulty seeds are produced, and in other places no seeds are matured. Before sowing the seeds, therefore, they should be tested, as should all grass seeds indeed, in order to know what proportion will germinate, and thus what quantity per acre to sow. One bushel of a good sample of this seed is sufficient for one acre of land.

The leaf, stalk and panicle of this grass resemble those of other sorghums. It grows on any land where corn will grow; and like the latter, the better the land the heavier the crop. On rich land the culms attain a size of over half an inch in diameter, and a height of seven feet. It should be cut while tender, and then all live stock are fond of it; for a few weeks are sufficient to render it so coarse and hard that animals refuse it, or eat sparingly.

A few testimonials are here quoted to give an idea of the productiveness and value of this plant. In a letter published in the *Rural Carolinian* for 1874, Mr. N. B. Moore, who had for more than forty years grown crops, speaks of this grass under the name of Guinea grass:

"My meadow consists of one hundred acres of alluvial land near Augusta. * * * In winter I employ but four men, who are enough to work my packing press; in summer, when harvesting, double that number. In autumn I usually scarify both ways with sharp, steel-toothed harrows, and sow over the stubble a peck of red clover per acre, which, with volunteer vetches, comes off about the middle of May. The second yield of clover is uniformly eaten up by grasshoppers. The top roots remain to fertilize the then coming Guinea grass, which should be but from two to three feet high. * * * On such land as mine it will afford three or four cuttings if the season is propitious. I use an average of five tons of gypsum soon after the first cutting, and about the same quantity of the best commercial fertilizer, in March and April. * * * The grass, which is cut before noon, is put up with horse sulky rakes, in cocks, before sun-down."

Mr. Moore's income from this field was from seven thousand to ten thousand dollars a year.

Mr. Goelsel, of Mobile, says: "It is undoubtedly the most profitable soiling plant yet introduced, and also promises to be *the plant* for our Southern hay stacks, provided it can be cut every three or four weeks."

Note.—Recognizing all the above, I would say, that great care must be taken not to sow this grass near cultivated lands. If done so, it should not be allowed to go to seed, as the wind will blow them off from the stalks, and when it gets amongst cane or other crops it causes a great deal of trouble. It is almost impossible to get it out of the land.

FLOWER SEEDS.

The following list of Flower seeds is not very large, but it contains all which is desirable and which will do well in the Southern climate. I import them from one of the most celebrated growers in Prussia, and they are of the best quality. There are very few or no flower seeds raised in this country, and Northern houses, which publish large lists and catalogues, get them from just the same sources as myself; but they, on an average, sell much higher than I do. Some varieties, which are biennial in Europe or North, flower here the first season; in fact, if they do not, they generally do not flower at all, as they usually are destroyed by the continued long heat of summer. Some kinds grow quicker here and come to a greater perfection than in a more Northern latitude.

Flower seeds require a little more care in sowing than the vegetable seeds. The ground should be well pulverized and light enough not to bake after a rain. Some of the more delicate and finer varieties are better sown in boxes or seed pans, where they can be better handled and protected from hard rains or cold weather; the other kinds do not transplant well, and are better sown at once where they are to remain, or a few seeds may be sown in small pots to facilitate transplanting into the garden without disturbing the plants, when large enough. Some have very fine seeds, which the mere pressing of the hand or spade to the soil will cover; others may be covered one-fourth of an inch, according to their size. Watering should be done carefully, and if not done with a syringe, a watering pot, where the holes of the spout are very fine, should be used.

By setting the plants out, or sowing the seeds in the border, consideration should be taken of the height, so that the taller varieties may be in the middle and the dwarf kinds on the edge of the bed.

The seeds are put up at ten cents a package, fifteen packages for one dollar, except a few rare or costly kinds, where the price is noted. All flower seeds in packages are mailed free of postage to the purchaser. Where there is more than one color, I generally import them mixed, as I find that most of my customers do not wish to purchase six packages, or more, of one

variety, in order to get all the colors. One package of Asters, Zinnia, Phlox, Chinese Pink, German Stocks, Petunia, Portulaca, and others, will always contain an equal mixture of the best colors.

Althea Rosea. Hollyhock. This flower has been much improved of late years, and is very easily cultivated. Can be sown from October till April. Very hardy; from four to six feet high.

Alyssum maritimum. Sweet Alyssum. Very free flowering plants, about six inches high, with white flowers; very fragrant. Sow from October till April.

Antirhinum majus. Snapdragon. Choice mixed. Showy plant of various colors. About two feet high. Should be sown early, if perfect flowers are desired. Sow from October till March.

Aster. Queen Margaret. German Quilled. Perfect double quilled flower, of all shades, from white to dark purple and crimson. One and a half feet high.

Aster. Trufaut's Pæony-Flowered Perfection. Large double pæony-shaped flowers, of fine mixed colors; one of the best varieties. Two feet high; sow from December till March. Asters should be sown in a box or in pots, and kept in a green-house, or near a window; when large enough, transplant into the border. Take a shovel of compost and mix with the ground before planting. Put three to four plants together and they will show better. They can be cultivated in pots.

Adonis autumnalis. Flos Adonis, or Pheasant's Eye. Showy crimson flower, of long duration. One foot high. Sow from November till April.

Amaranthus caudatus. Love Lies Bleeding. Long red racemes with blood red flowers. Very graceful, three feet high.

Amaranthus tricolor. Three-colored Amaranth. Very showy; cultivated on account of its leaves, which are green, yellow and red. Two to three feet high.

Amaranthus bicolor. Two-colored Amaranth. Crimson and green variegated foliage; good for edging. Two feet high.

Amaranthus Salicifolius. Fountain plant. Rich colored foliage; very graceful. Five to six feet high. All varieties of Amaranthus should be sown from February to June.

Aquilegia. Columbine. A showy and beautiful flower of different colors; two feet high. Sow from October till March. Should be sown early if flowers are wished; if sown late will not bloom till next season.

Balsamina Hortensis. Lady Slipper. A well known flower of early culture. Requires good ground to produce double flowers.

Balsamina. Improved Camelia-flowered. Very double and beautiful colors. The strain which I offer of this variety is very fine; but to have them perfect they should not be sown too soon. In rich ground and during dry weather they require plenty of water.

Balsamina camellia flora alba. Pure white flowers, used for bouquets, about two feet high. Sow from February till August.

Bellis Perennis. Daisy. Finest, double mixed variety; four inches high. From October till January.

Browallia elata major. A free blooming plant of about 12 inches in height, with very showy dark blue flowers. If sown in March it will flower all summer, but can also be sown in November potted and kept under glass, where it will begin to bloom in the latter part of December and continue all winter.

Begonia tuberosa. A very thankful green-house plant, with tuberous roots and large showy pink, white or red flowers. It is of easy culture and can be kept out of doors in a half shady place after the 15th of April. Sow from October till March in flower pots. Price, per packet, 25 cents.

Begonia Rex. A beautiful and showy green-house foliage plant of easy culture. Will do well out of doors during summer months, but requires a shady place. Sow like above. Price, per packet, 25 cents.

Cacalia coccinea. Scarlet Tassel Flower. A profuse flowering plant, with tassel-shaped flowers in cluster; one and a half feet. Sow February till May.

Calendula officinalis. Pot Marigold. A plant which, properly speaking, belongs to the aromatic herbs, but sometimes cultivated for the flowers, which vary in different shades of yellow; one and a half feet high. From January till April.

Celosia cristata. Dwarf Cock's comb. Well known class of flowers which are very ornamental, producing large heads of crimson and yellow flowers; one to two feet high. Sow from February till August.

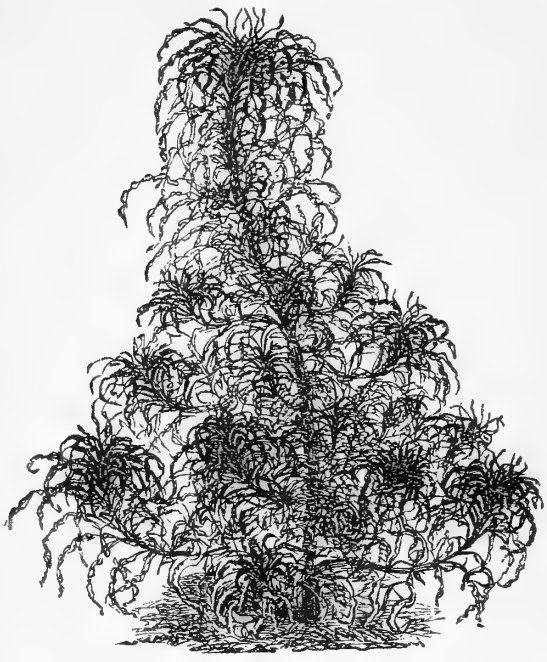
Cheiranthus Cheiri. Wall Flower. This flower is highly esteemed in some parts of Europe, but does not grow very perfectly here, and seldom produces the large spikes of double flowers which are very fragrant. Two feet high. November till March.

Campanula Speculum. Bell-Flower, or Venus' Looking-Glass. Free flowering plants of different colors, from white to dark blue; one foot high. Sow December till March.

Centaurea cyanus. Bottle Pink. A hardy annual of easy culture, of various colors; two feet high.

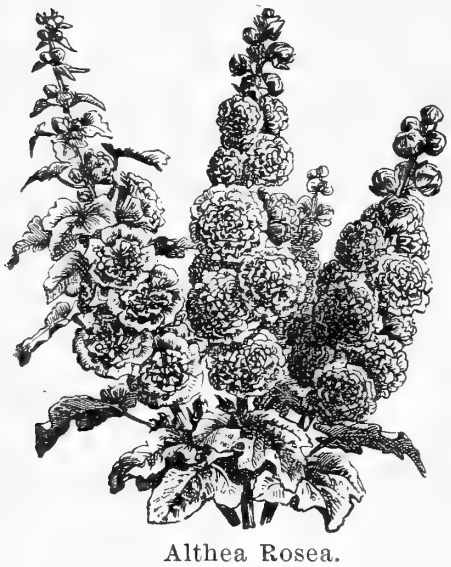
Centaurea suavolens. Yellow. Sweet Sultan. December to April.

Cineraria hybrida. A beautiful green-house plant. Seed should be sown in



Amaranthus Salicifolius, Fountain Plant.

Trufaut's Pæony-Flowered Aster.



Althea Rosea.

German Quilled Aster.

Amaranthus Tricolor.

Amaranthus Caudatus.

Double Daisy.

Adonis autumnalis.

Cyclamen Persicum.

October or November, and they will flower in spring. Per packet, 25 cents.

Cineraria Maritima. A handsome border plant, which is cultivated on account of its silvery white leaves. Stands our summer well.

Coleus. A well known and beautiful bedding plant which can be easily propagated by seeds which produce different shades of colored plants.

Cyclamen persicum. Alpine Violet. A green-house plant with tuberous or rather bulbous roots, blooming abundantly, being possessed of very ornamental foliage and of easy culture. It should not be missing in any collection of green-house plants. Sow in August and September in pots, transplant in small pots when large enough, and keep either in green-house or a room near the window, and give plenty of light and air. Keep Bulbs dry during summer. Price, per packet, 25 cents.

Correopsis. (Calleopsis.) Bright Eye Daisy. Handsome free blooming plants, of the easiest culture, 2 to 3 feet high, with yellow and brown daisy-like flowers. December to March.

Chrysanthemum tricolor. (Carinatum.) Summer Chrysanthemum. Showy summer bloomers of different colors, 12 to 15 inches high. If grouped together they have a pleasing effect. Sow in March and April.

Dianthus Barbatus. Sweet William. A well known plant which has been much improved of late years. Their beautiful colors make them very showy. Should be sown early, otherwise they will not flower the first spring; one and a half feet high. October till April.

Dianthus Chinensis. Chinese Pink. A beautiful class of annuals of various colors, which flower very profusely in early spring and summer; one foot high. From October till April.

Dianthus Heddewiggii. Japan Pink. This is the most showy of any of the annual pinks. The flowers are very large and of brilliant colors; one foot high. Sow from October till April.

Dianthus plumaris. Border Pink. A fragrant pink used for edging. The flowers are tinged, generally pink or white with a dark eye. Does not flower the first year; two feet high. Sow from January till April.

Dianthus caryophyllus. Carnation Pink. This is a well known and highly esteemed class of flowers. They are double, of different colors, and very fragrant; can be sown either in fall or spring; should be shaded during midsummer and protected from hard

Aquilegia, or Columbine.

Cheiranthus Cheiri.

Dianthus Chinensis, Double.

Centaurea Cyanus.

Dianthus Barbatus.

Celosia Cristata.

Balsamina Camelia-Flowered.

Calendula officinalis.

rains; three to four feet high. November till April.

Dianthus Picotee. Finest hybrids. Stage flowers saved from a collection of over 500 named varieties; per package, 50 cents.

Dianthus caryophyllus, Margaritae robustus, fl. pl Semi-high double Margaret Carnations. This beautiful pink originated in Italy. It is of a dwarfish habit, grows from 12 to 15 inches high; the stalks are exceedingly strong, and therefore need no support. The flowers are much variegated, occasionally producing yellow ones. What makes this variety remarkable, is, that it flowers after four months from the time of sowing the seed, and produces about 80 per cent. of double flowers, unlike other Carnations, which are biennial and only bloom the second year.

Dianthus pumila. Early dwarf flowering Carnation. If sown early, this variety will flower the first season. They are quite dwarfish and flower very profusely. November till April.

Delphinium Imperialis, fl. pl. Imperial flowering Larkspur. Very handsome variety of symmetrical form. Mixed colors; bright red, dark blue and red striped; 1½ feet high.

Delphinium ajacis. Rocket Larkspur. Mixed colors; very showy; two and a half feet.

Delphinium Chinensis. Dwarf China Larkspur. Mixed colors; very pretty; one foot high. November till April.

NOTE.—None of the Delphiniums or Larkspurs transplant well, and are better sown at once where they are intended to remain.

Dahlia. Large flowering Dahlia. Seed sown in the spring will flower by June. Very pretty colors are obtained from seed, the semi-double or single ones can be pulled up as they bloom; but those seeds which are saved from the double varieties will produce a good percentage of double flowers. February till June.

Eschscholtzia Californica. California Poppy. A very free flowering plant, good for masses. Does not transplant well. One foot high. December till April.

Gaillardia Lorentziana. Two-colored Gaillardia. Very showy plants which continue to flower for a long time. Flowers red, bordered with orange yellow. One and a half feet high. January till April.

Gomphrena alba and purpurea. White and Crimson Batchelor Button or Globe Amaranth. Well known variety of flowers; very early and free flowering; continue to flower for a long time. Two feet high. From February till August.

Geranium Zonale. Zonale Geranium. Seed saved from large flowering varieties of different colors; should be sown in seed pans, and when large enough transplanted into pots, where they can be left, or transplanted in spring into the open ground.

Geranium pelargonium. Large flowering Pelargonium. Spotted varieties, 25 cents per package.

Geranium odoratissima. Apple scented Geranium. Cultivated on account of its fragrant leaves; 25 cents per package. Both of these kinds are pot plants, and require shade during hot weather. Should be sown during fall and winter.

Heliotropium. Mixed varieties with dark and light shaded flower. A well known plant, esteemed for the fragrance of its flowers, which are produced during the whole summer in great profusion. This plant is generally propagated by cutting, but can also be raised from seed. Should be sown in a hot-bed if sown early.

Helichrysum monstrosum album. White Everlasting Flower. Very showy double flowers. One and a half feet high.

Helichrysum monstrosum rubrum. Red Everlasting Flower. Very ornamental. One and a half feet high. December till April. Does not transplant well.

Cacalia Coccinea.

Delphinium Chinensis.

Dianthus Caryophyllus.

Centaurea Suavolens.

Purple Globe Amaranth.

Dianthus Picotee.

Dianthus Heddewiggii.

Helianthus fl. pl. Double Flowering Sunflower. A well known plant, with showy yellow flowers. The double is often cultivated in the flower garden. The single varieties are cultivated mostly for the seed. They are said to be anti-malarious. Four feet high. February till May.

Iberis amara. White Candytuft. A well known plant raised a good deal by florists for bouquets. Can be sown at different times to have a succession of flowers. One foot high.

Iberis umbelata rosea. Purple Candytuft. One foot. October till April.

Impatiens Sultani. This handsome single variety of the well-known Balsam or Lady Slipper, is surely a good acquisition to our rich collection of summer bloomers. Of half high growth, being literally covered with

Early Dwarf Double Carnation Pink.

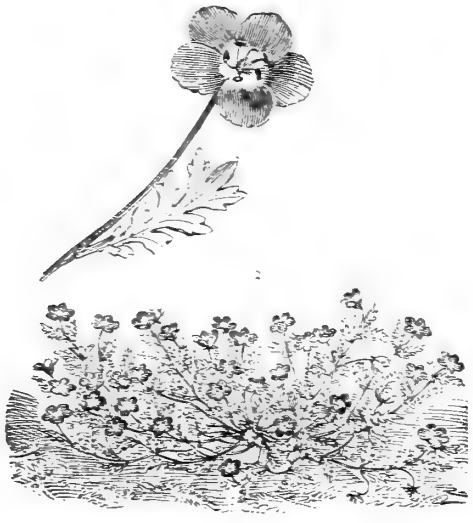
Gaillardia Bicolor

Lobelia Erinus.

Heliotropium.

Mathiola Annua.

Geranium Zonale.



Blue Grove Love.

Petunia hybrida.

Nigella Damascena.

pale scarlet flowers during the summer months, it cannot be surpassed for bedding out. Price, per packet, 25 cents.

Linum grandiflorum rubrum. Scarlet Flax. A very pretty plant for masses or borders, with bright scarlet flowers, dark in the centre. One foot. January till April.

Lobelia erinus. Lobelia. A very graceful plant with white and blue flowers, well adapted for hanging baskets or border. Half foot. October till March.

Lychnis chalcedonica. Lychnis. Fine plants with scarlet, white and rose flowers. Two feet. December till April.

Mathiola annua. Ten weeks stocks. This is one of the finest annuals in cultivation. Large flowers of all colors, from white to dark blue or crimson. Should be sown in pots or pans, and when large enough transplanted into rich soil. One and a quarter feet. October till March.

Mesembryanthemum crystallinum. Ice plant. Neat plant with icy looking foliage. It is of spreading habit. Good for baskets or beds. One foot. February till March.

Mimulus tigrinus. Monkey flower. Showy flowers of yellow and brown. Should be sown in a shady place. Does not transplant well. Half foot. December till March.

Matricaria capensis. Double Matricaria. White double flowers, resembling the Daisy, but smaller, are fine for bouquets; blooms nearly the whole summer. Two feet. December till March.

Mimosa pudica. Sensitive plant. A curious and interesting plant which folds up its leaves when touched. One foot. February till June.

Mirabilis jalapa. Marvel of Peru. A well-known plant of easy culture; producing flowers of various colors. It forms a root which can be preserved from one year to another. February till June. Three feet.

Myosotis palustris. Forget-me-not. A fine little plant with small, blue, star-like flowers. Should have a moist, shady situation. Does not succeed so well here, as in Europe, of which it is a native. Half foot high. December till March.

Nemophila Insignis. Blue Grove Love. Plants of easy culture, very pretty and profuse bloomers. Bright blue with white centre. One foot high.

Nemophila maculata. Large white flowers spotted with violet. One foot high. December till April.

Nigella damascena. Love in a Mist. Plants of easy culture, with light blue flowers. Does not transplant well. One foot high. December till April.

Nierembergia gracilis. Nierembergia. Nice plants with delicate foliage, and white flowers tinted with lilac. One foot high. November till April.

Lychnis Chalcedonica

Geranium Pelargonium.

Ice Plant.

Double Matricaria.

Helichrysum Monstrosum Album

Œnothera Lamarckiana. Evening Primrose. Showy, large yellow flowers. December till April. Two feet high.

Papaver Somniferum. Double flowering Poppy. Of different colors; very showy.

Papaver ranunculus flowered. Double fringed flowers, very showy. Cannot be transplanted. Two feet high. October till March.

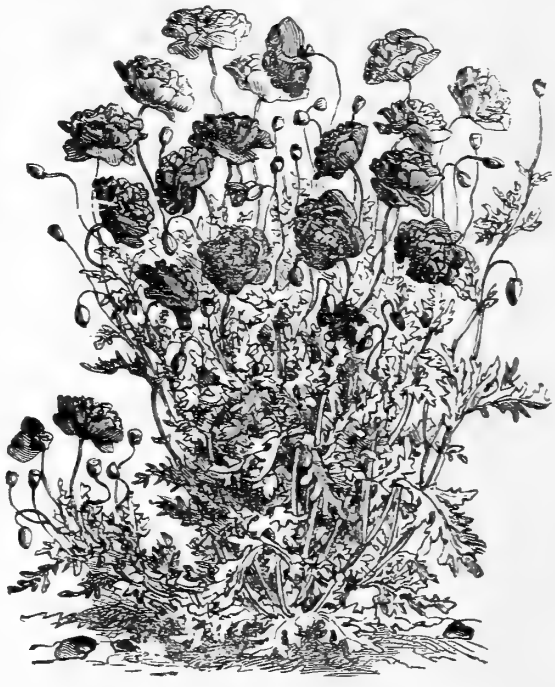
Petunia hybrida. Petunia. Splendid mixed hybrid varieties. A very decorative plant of various colors, well known to almost every lover of flowers. Plants are of spreading habit; about one foot high. January till May.

Phlox Drummondii. Drummond's Phlox. One of the best and most popular annuals in cultivation. Their various colors and length of flowering, with easy culture, make them favorites with every one. All fine colors mixed. One foot high. December till April.

Phlox Drummondii grandiflora alba. Pure white, some with purple or violet eye.

Phlox Drummondii grandiflora, Stellata splendens. This is admitted to be the richest colored and most effective of all large flowered Phloxes. It combines all the good qualities of the Splendens, with the addition of a clearly defined, pure white star, which contrast strikingly with the vivid crimson of the flowers.

Impatiens Sultani.

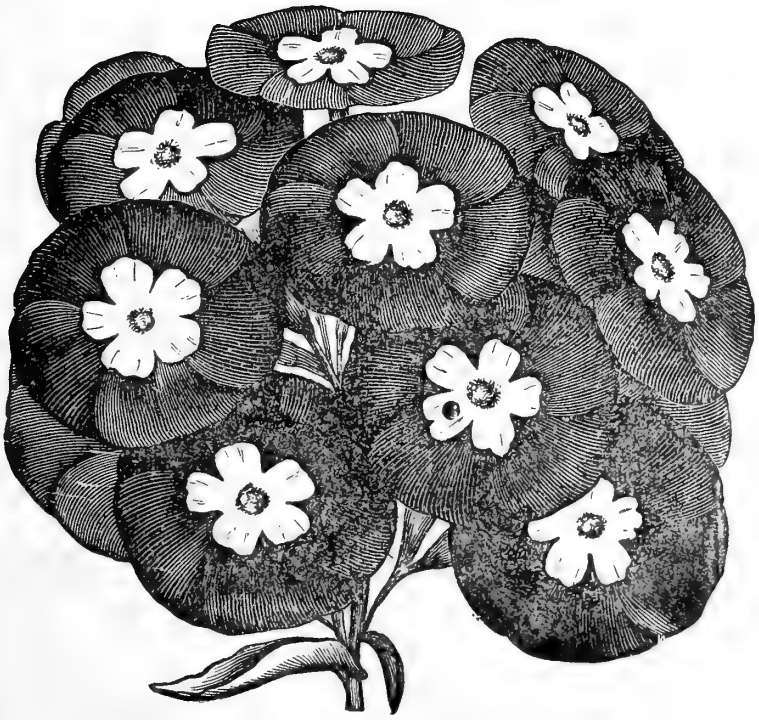


Papaver Ranunculus Flowered.

Œnothera Lamarckiana.

Portulaca.

Phlox Drummondii Grandiflora,



Phlox Drummondii, Grandiflora Stellata Splendens.

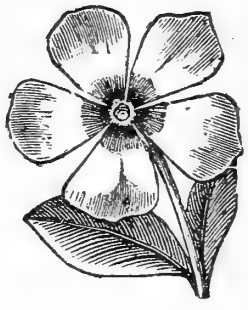
Scabiosa nana.

Primula Veris

Petunia Hybrida Double.

Tagetes Erecta.

Tagetes Patula



Vinca Rosea and Alba.

Reseda Odorata.

Portulaca. A small plant of great beauty, and of the easiest culture. Does best in a well exposed situation, where it has plenty of sun. The flowers are of various colors, from white to bright scarlet and crimson. The plant is good for edging vases or pots; or where large plants are kept in tubs, the surface can be filled with this neat little genus of plants. Half foot high. February till August.

Portulaca grandiflora, fl. pl. Double Portulaca. The same variety of colors with semi-double and double flowers. Half foot high. February till August.

Primula veris. Cowslip. An herbaceous plant of various colors, highly esteemed in Europe. Half foot high. December till April.

Primula chinensis. Chinese Primrose. A green-house plant, which flowers profusely and continues to bloom for a long time; should be sown early to insure the plant flowering well. Different colors; mixed, per package, 25 cents. One and a half feet high. October till February.

Pyrethrum aurea. Golden Feather. The flowers resemble Asters. It has bright yellow leaves which make it very showy as a border if massed with plants, such as Coleus, etc.

Reseda odorata grandiflora. Sweet Mignonette. A fragrant plant with large spikes of yellowish red flowers and a favorite with everybody. Fifteen inches high. December till April.

Scabiosa nana. Dwarf Mourning Bride. Plants of double flowers of various colors. One foot high. December till April.

Saponaria calabrica. Soapwort. A very free flowering annual, of easy culture, resembles somewhat in leaves the Sweet William. One and a half feet high. December till April.

Salvia Splendens. Scarlet Salvia or Red Flowering Sage. A pot or greenhouse plant, but which can be grown as an annual, as it flowers freely from seed the first year. Two to three feet high. February till April.

Double Zinnia

Striped Italian Verbena.

Torenia Fournieri.

Choicest Large English Pansy.

Zinnia Elegans, Grandiflora Robusta Plenissima.

Silene Ameria. Lobel's Catchfly. A free blooming plant of easy culture; flowers almost anywhere. Red and white. One and a half feet high.

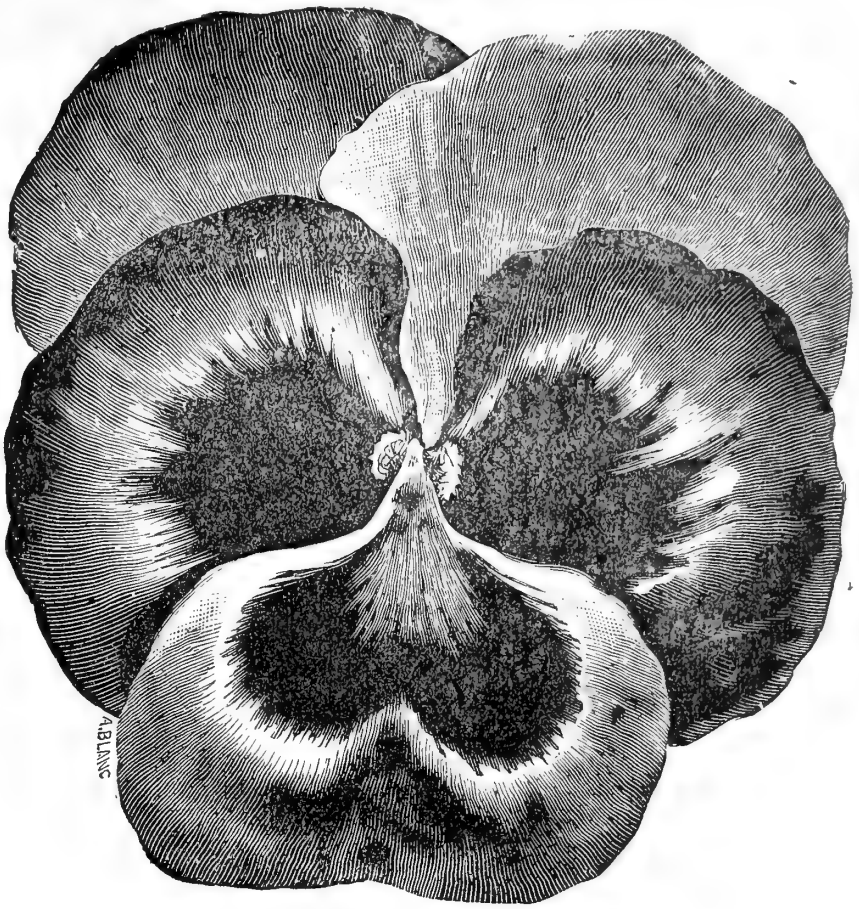
Tagetes erecta. African or Tall-growing Marigold. Very showy annuals for borders, with bright yellow flowers growing upright. Two and a half feet high.

Tagetes Patula. French or Dwarf Marigold. A very compact dwarf growing variety, covered with yellow and brown flowers. One and a half feet high. January till April.

Torenia Fournieri. A plant from Mexico of recent introduction, but which has become very popular in a short time. It stands the heat well, is well adapted to pot culture and makes one of the most valuable bedding plants we have. The flowers are of a sky blue color, with three spots of dark blue. The seeds are very fine and take a good while to germinate. It transplants very easily.

Verbena hybrida. Hybridized Verbena. A well known and favorite flower for borders. Their long flowering and great

Hybridized Verbena.



Large Trimardeau Pansy.

diversity of color make them valuable for every garden, however small. All colors mixed.

One and a half feet high. January till April.

Verbena Striped Italian. These are beautiful striped kinds of all colors with large eyes.

Verbena Candidissima. White Verbena. Pure white Verbena of more or less fragrance. One and a half feet high. January till April.

Vinca rosea and alba. Red and White Periwinkle. Plants of shining foliage, with white and dark rose colored flowers, which are produced the whole summer and autumn. Two feet high. February till April.

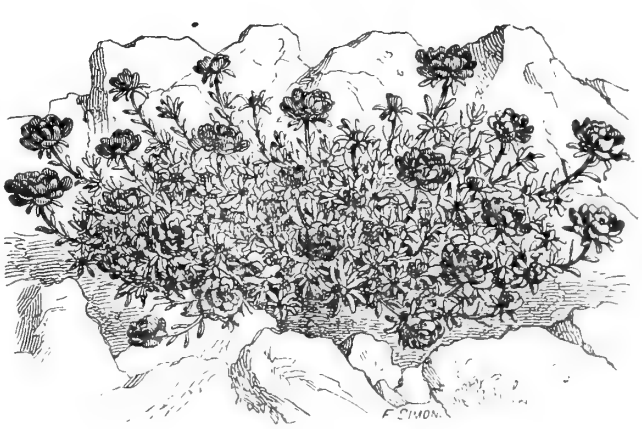
Viola odorata. Sweet Violet. Well known edging plant, which generally is propagated by dividing the plants; but can also be raised from seed. Half foot high. Sow from January till March.

Viola tricolor maxima. Large flowering English Pansy. This is one of the finest little plants in cultivation for pots or the open ground. They are of endless colors and markings. When planted in the garden, they will show better if planted in masses, and a little elevated above the level of the garden. Half foot high. October till March.

Large Trimardeau Pansy. This is the largest variety in cultivation; the flowers are well formed, generally three-spotted; quite distinct; the plants grow compact.

Non Plus Ultra. Benary's Elite Pansy. This new variety from Germany is the finest of all Pansies. Endowed with well-formed flowers in endless colors and shades; they form a valuable acquisition to our many varieties in cultivation, and should not be missing in any garden. Price, 10c. per packet.

Cassiers improved Pansy. A



Double Portulaca.

beautiful variety with large flowers of most perfect form, exquisite coloring and very compact growth. The flowers are generally five-spotted but more distinctly marked than the Trimardeau. Price, 25c. per packet.

Bugnots improved blotched Pansy. This new variety is certainly the handsomest of all the Pansies and like the

Odiers are five blotched and generally yellow or white edged. The flowers are of the most perfect form and beautiful coloring. This variety is one of the best and forms a fine acquisition to our already large collection. Price per packet, 25c.

Zinnia elegans, fl. pl. Double Zinnia. Plants of very easy culture, flowering very profusely through the whole summer and fall; producing double flowers of all colors, almost as large as the flower of a Dahlia. Three feet high. February till August.

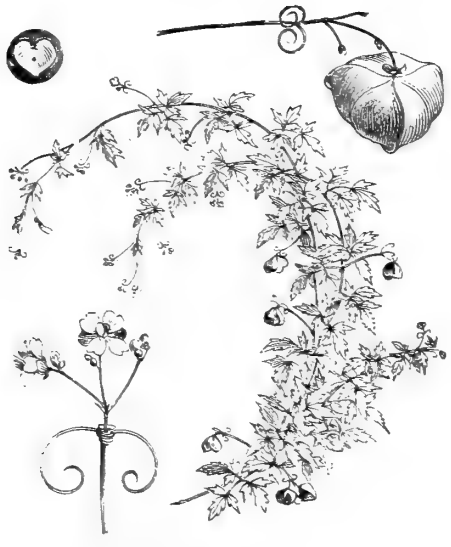
Zinnia elegans pumila, fl. pl. Dwarf Double Mixed. A new dwarf section, especially desirable. The compact, bushy plants rarely grow over two feet high, and are covered with large flowers of great beauty.

Zinnia elegans grandiflora robusta plenissima. A new variety recently introduced here from Germany. The plants of this new class of showy and attractive annuals are of very robust growth and produce very large and extremely double flowers, measuring from 4 to 5 inches in diameter. The seeds I offer for sale, come direct from the originator, and contain about eight different beautiful colors, mostly very bright.

CLIMBING PLANTS.

Antigonum Leptopus. Rosa montana. One of the finest perennial climbers of rapid growth with long racemes of beautiful deep pink flowers. Being a native of Mexico, it is well adapted to our climate and will stand our most severe winters without any further protection than perhaps a slight cover of moss or straw. Sow in February or March in flower pots, and transplant into the open ground in May. Will flower freely the first year. Without any doubt the finest climber for this section.

Aristolochia elegans. A new variety of the well known "*Dutchman's pipe,*" (which however will not grow here;) of vigorous growth and quite hardy in our climate. It is a profuse bloomer, bearing large flowers of a rich purple color with irregular branched markings of creamy white and golden yellow centre with rich velvety purple. This plant is one of the most thankful of all climbers, blooming when quite young and continuing to do so the whole summer. Will stand our winter without protection. Sow in January



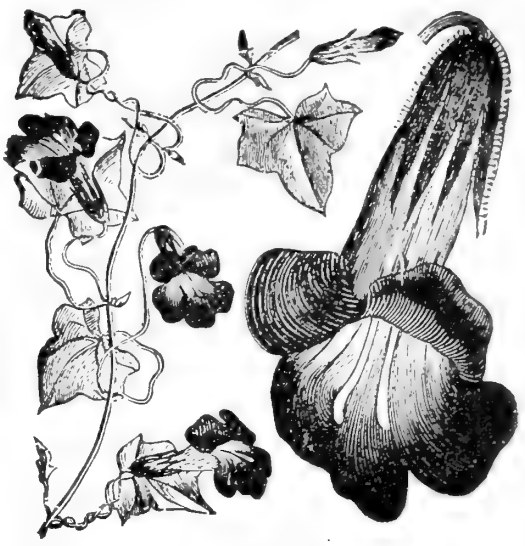
Balloon Vine.

Morning Glory.

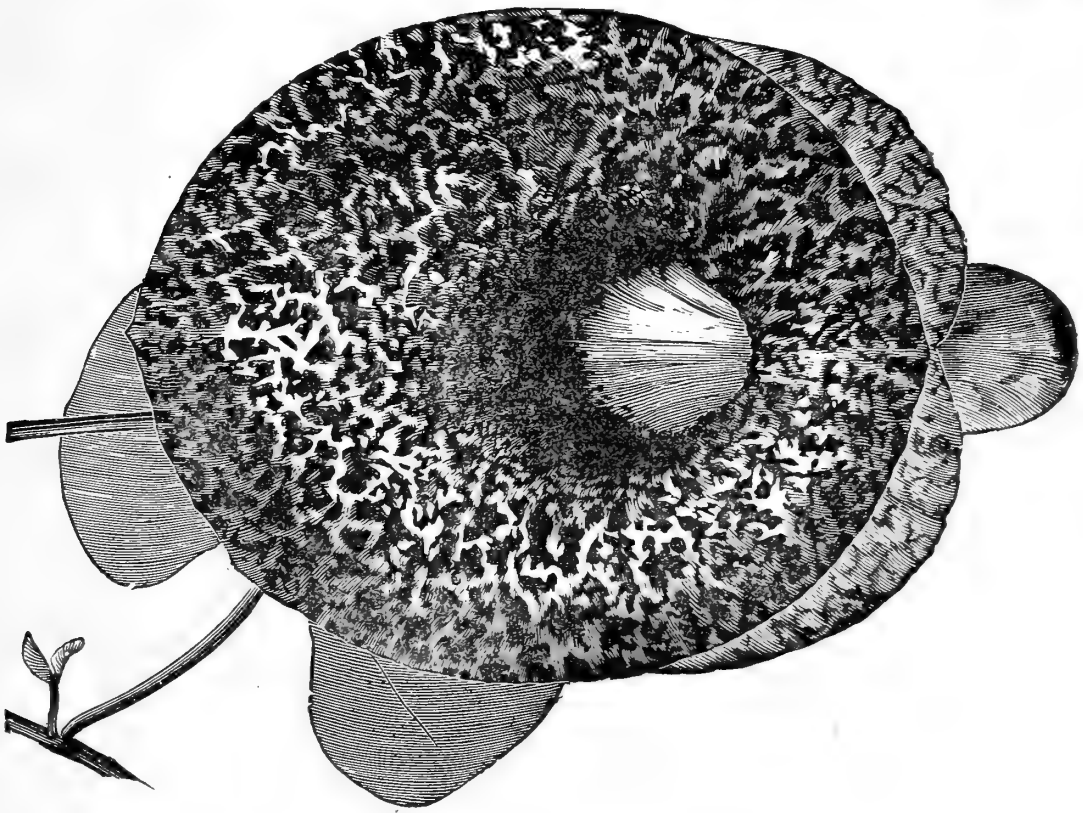
Climbing Cobæa.

Mixed Thunbergia.

Hyacinth Bean.



Maurandia Barclayana.



Aristolochia Elegans.

and February in flower pots and transplant in open ground when large enough.

Benincasa cerifera. Wax Gourd. A strong growing vine with long shaped, dark crimson fruit, which looks very ornamental. It is used for preserves.

Cardiospermum. Balloon Vine. A quick-growing climber, the seeds of which are in a pod, shaped like a miniature balloon, therefore the name.

Cobæa Scandens. Climbing Cobæa. Large purple bell-shaped flowers. Should be sown in a hot-bed and not kept too moist. Place the seed edgewise in the ground. Twenty feet high. January till April.

Convolvulus major. Morning Glory. Well known vine with various handsomely colored flowers, of easy culture. Grows almost anywhere. Ten feet high. February till July.

Cucurbita. Ornamental Gourd. Mixed varieties or Ornamental Gourds of different shapes and sizes. February till May.

Cucurbita Lagenaria dulcis. Sweet Gourd. A strong growing vine of which the young fruits are used like Squash. February till April.

Dolichos Lablab. Hyacinth Beans. Free growing plant, with purple and white flowers. March till April.

Ipomæa Quamoclit rosea. Red Cypress Vine. Very beautiful, delicate foliage, of rapid growth, with scarlet flowers.

Ipomæa Quamoclit alba. White Cypress Vine. The same as the Red variety.

Ipomæa Bona Nox. Large Flowering Evening Glory. A vine of rapid growth, with beautiful blue and white flowers which open in the evening. Twenty feet high. February till June.

This is the Moon flower advertised in Northern catalogues as a novelty, notwithstanding the fact that it has been known here for the past century.

Lathyrus odoratus. Sweet Peas. Beautiful flowers of all colors, very showy. Good for cut flowers. Six feet high. December till April.

Maurandia Barclayana. Mixed Maurandia. A slender growing vine of rapid growth. Rose purple and white colors mixed. Ten feet high. February till April.

Mina Lobata. A showy plant from Mexico of the well-known Ipomœa family with beautiful spikes or racemes of yellowish white flowers.

The buds are at first of a bright red, but soon change to orange yellow, and when in full bloom to a yellowish white, forming a fine contrast with the dense and luxuriant foliage. This plant does well in sunny situations and cannot be surpassed for covering arbors, trellises, etc., but is however sometimes affected by our heavy and lasting summer showers. Should be sown early in order to get it to perfection as it blooms only when fully grown.

Price, per packet, 25c.

Mamordica Balsamina. Balsam Apple. A climbing plant of very rapid growth, producing Cucumber-like fruits, with warts on them. They are believed to contain some medicinal virtues. They are put in jars with alcohol and are used as a dressing for cuts, bruises, etc.

Luffa acutangula. Dish Rag Vine. A very rapid growing vine of the Gourd family. When the fruit is dry, the fibrous substance, which covers the seeds, can be used as a rag. February till April.

Sechium edule. Vegetable Pear or Mirliton. A rapid growing vine with grape-like leaves, of which the fruit is eaten; there are two varieties, white and green. It has only one seed, and the whole fruit has to be planted.

Tropœolum majus. Nasturtium. Trailing plants with elegant flowers of different shades, mostly yellow and crimson, which are produced in great abundance. Four feet high. February till April.

Thunbergia. Mixed Thunbergia. Very ornamental vines, with yellow bell-shaped flowers with dark eye. Six feet high. February till May.

Mina Lobata.

BULBOUS ROOTS.

Anemones. Double flowering. Planted and treated the same as the Ranunculus. They are of great varieties in color.

Double-Dutch, 40 cents per dozen.

Dahlias. Fine double-named varieties. Plants so well known for their brilliancy, diversity of colors and profuse flowering qualities, that they require no recommendation. They can be planted from February till May; they thrive best in rich loamy soil. They should be tied up to stakes, which ought to be driven into the ground before or when planting them. To have them flower late in the season they should be planted late in the spring, and the flower buds nipped off when they appear; treated in this way, they will produce perfect flowers during fall. Undivided roots, $3.00 per dozen.

The roots I offer are of the very best type, having taken special pains to discard varieties which did not flower well here.

Gladiolus. Hybrid Gladiolus. One of the best summer flowering bulbs; they have been greatly improved of late years, and almost every color has been produced; is tinged and blotched in all shades from delicate rose to dark vermillion. When planted at intervals during spring, they will flower at different times, but those that are planted earliest produce the finest flowers. The roots should be taken up in the fall.

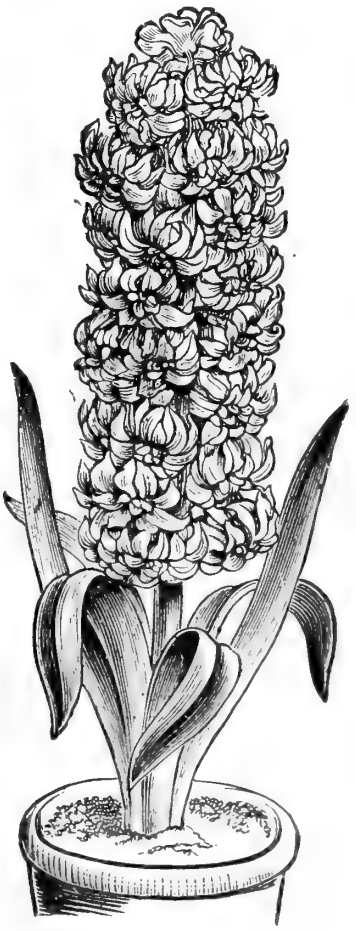
Gloxinias.

Hybrid Gladiolus.

Lilium Tigrinum fl. pl.

Lilium Lancifolium Rubrum.

Double Hyacinth.



Single Hyacinth.

Dahlias.

Anemones.

Hybrids mixed, first choice (extra), 10c. each; 75c. per dozen.

Hybrids white ground, first choice, 10c. each; 75c. per dozen.

Hybrids mixed, 50c. per dozen.

Gloxinias. These are really bulbous green-house plants, but they can be cultivated in pots and kept in a shady place in the garden, or window. They are very beautiful; color from white to dark violet and crimson. The leaves are velvety, and on some varieties very large. They should be planted early in spring; require sandy ground and a good deal of moisture during flowering time. French Hybrids, strong bulbs, 25c. each; $2.50 per dozen.

Hyacinths. (DUTCH.) Double and single. The Hyacinth is a beautiful flowering bulb, well suited for open ground or pot culture. They should be planted from October till February. If planted in pots it is well to keep in a cool, rather dark place, till they are well started, when they can be placed in the full light and sun. Double and single, 10 cents each; 75c. per dozen. Named varieties, $1.00 per dozen.

Narcissus. Bulbs of the easiest culture, planted from November to January.

Double White, sweet scented, 35c. per dozen.

Paper White, (single), Price, 5c. each; 50c. per dozen.

Trumpet Major (single), very fine, 50c. per dozen.

Lilium tigrinum. Tiger Lily. A well known variety, very showy and of easy culture; 10 cents each.

Lilium tigrinum, fl. pl. This is a very fine variety; it is perfectly double, and the petals are imbricated almost as regularly as a camelia flower. Very fine, 15 cents each.

JAPAN LILIES.

Lilium auratum. Golden Band Lily. This is a very handsome lily; the flowers are large and white, each petal having a yellow stripe. It is of easy culture. A loamy, dry soil suits it best, and planted one inch deep.

The past season I had occasion to see several of this noble lily in bloom, and it is really fine; half a dozen flowers opening at the same time and measuring from six to nine inches across. It is very fragrant. I expect some fine bulbs, same as I had last year, imported direct from their native country. Flowering bulbs, 25c. each.

Lilium lancifolium album. Pure white, Japan Lily, 30 cents each.

Lilium lancifolium rubrum. White and red spotted, 15 cents each.

Lilium lancifolium roseum. Rose spotted, 15c. each.

These Japan Lilies are very beautiful and fragrant. Should be planted from October till January. Perfectly suited to this climate.

Pæonia sinensis. Chinese or herbaceous Pæonia. Herbaceous plants of different colors and great beauty; they should be planted during fall in a shady situation, as they flower early in spring. If planted too late they will not flower perfectly; 25c. each.

Ranunculus. Double Flowering. The roots can be planted during fall and winter, either in the open ground or in pots. The French varieties are more robust than the Persian, and the flowers are larger. The ground should be rather dry, and if planted in the open ground, it will be well to have the spot a little higher than the bed or border. French Ranunculus, 25c. per doz.

Scilla peruviana. These are greenhouse bulbs at the North, but here they are hardy, and do well in the open ground. There are two varieties—the blue and the white. They grow up a shoot, on the end of which the flowers appear, forming a truss. Plant from October till January. 25 cents each.

Tulips. Double and single Tulips thrive better in a more Northern latitude than this, but some years they flower well here, and as they are cheap, a few flowering bulbs will pay

Double Tulip.

Lilium auratum.

Single Tulip.

Tuberoses, double flowering.

Ranunculus.

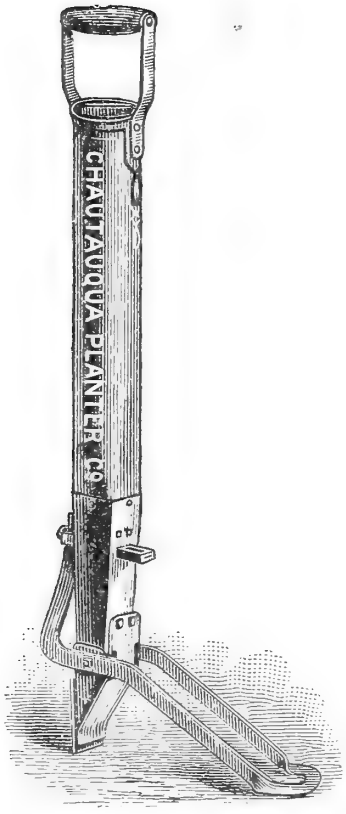
Scilla peruviana.

the small amount they cost. They should not be planted later than December, and placed very shallow in the ground; not more than one-third of the bulb should be covered. When near flowering they require a good deal of moisture. Single and double, 50 cents per doz.

Tuberoses. Double Flowering. They are ornamental for the garden, and very valuable for making bouquets, on account of their pure white color and great fragrance. Plant during the spring months. Strong bulbs, 10 cents each; 75 cents per dozen.

THE CHAUTAUQUA CORN AND SEED PLANTER.

Unequalled in Simplicity, Durability and Efficiency.



Patented, April 4, 1882.

THE BEST IS THE CHEAPEST. PERFECTLY SIMPLE. SIMPLY PERFECT.

DIRECTIONS.

To set the seed cup.—Loosen the set-screw and draw out the inside or narrow guage far enough to drop the desired number of seeds. Then tighten the screw. For ordinary planting, only the narrow guage should be moved. In putting in phosphate, or a large quantity of seed, both the narrow and wide guages should be drawn out together. By taking out the screws, the guages may be drawn entirely out.

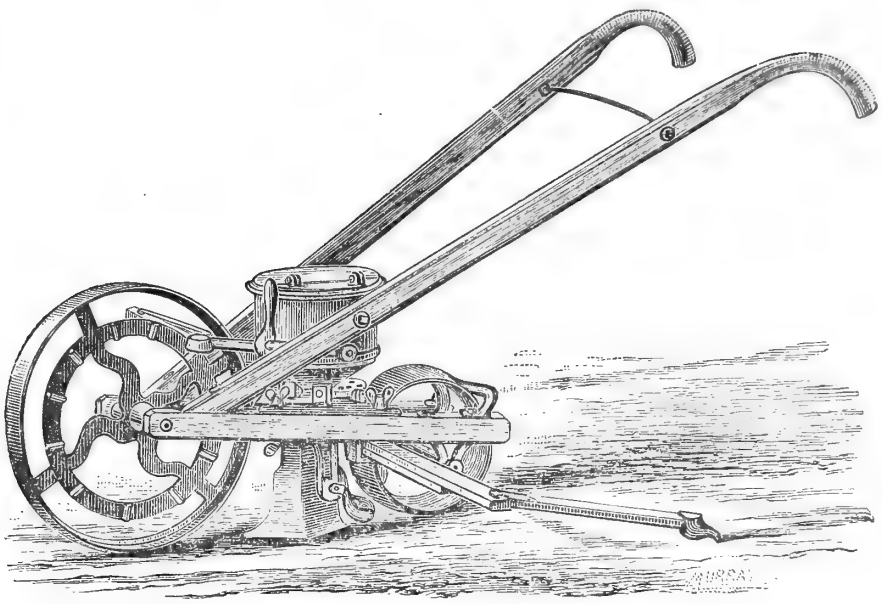
In experienced or careful hands the machine will plant perfectly in any kind or condition of soil, mellow or soddy, dry or wet.

To operate the planter.—Place the blades in the ground to the desired depth, in advance of you, having the "step" to the front, as in the cut, without its touching the ground. Then pressing down forward on the handle, walk forward. The step will press on the ground and a charge taken for the next hill. After walking past the planter, still pressing on the handle, lift it from the ground to the place for the next hill; as this is done the charge of seed will be HEARD rattling down upon the steel blades, and the operator will know the seed is ready for the next hill. Use the planter as you would a cane, or as much so as possible. *The blades must always enter the ground closed, and come out open.*

Its efficiency.—We claim that the "Chautauqua" is not equalled as a dropper and planter. By actual trial in the field with a number of good planters, it has been shown that our machine will cover the seed in different soils and at different depths, shallow or deep, better than any other planter. *Our new improved seed slide,* having double guages for adjusting the seed cup, enables the planter to *drop accurately small or large seed,* in the quantity desired. Price, 2.25.

THE NEW YORK SEED DRILL.

MATTHEWS' PATENT.



I take pleasure in calling your attention to a perfect Seed Drill. This Drill was invented and perfected by the father of the seed-drill business—Mr. E. G. Matthews. It has been his aim for *years* to make a perfect drill and do *away* with the *objections found* in all others, and in the New York he has accomplished it. Its advantages over other drills are as follows:

1. Marker-bar under the frame held by clamps, easy to adjust to any width by simply loosening thumb nuts.
2. Adjustable plow which opens a wide furrow, and can be set to sow at any depth.
3. Open seed conductor to show seed dropping.
4. *Burs in seed conductor*, for scattering seed in wide furrows, prevents disturbing strong plants when thinning out—an important feature.
5. Ridged roller.
6. Dial plate in full sight of operator, and made of patent combination white metal which prevents rust.
7. Dial plate set on fulcrum, and hence holds close up, preventing seed from spilling.
8. It has a large seed-box with hinged cover.
9. Machine will stand up alone when not in use, not liable to tip over.

It is the SIMPLEST, MOST COMPACT and EASIEST DRILL TO HANDLE, being only 32 inches long.

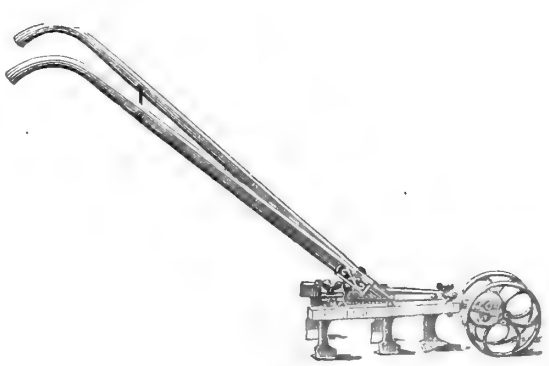
It covers the seed better and runs very easy.

Packed in crates for shipping. Weighs about 45 pounds. Price, $9.00.

MATTHEW'S HAND CULTIVATOR.

The Matthew's Hand Cultivator is one of the best implements in use for weeding between row crops, and for flat cultivation generally, and is an indispensable companion to the seed drill.

It is thoroughly constructed throughout, very durable; easy to operate. *A boy can do as much with it as six men with hoes.* It spreads from 6 to 14 inches, and will cut all the ground covered, even when spread to its greatest extent. Its teeth are of a new and improved pattern and thoroughly pulverize and mellow the soil. The depth of cultivating may be accurately gauged by raising and lowering the wheels, which is quickly done by the use of a thumb screw.



Price, $5.00 boxed.

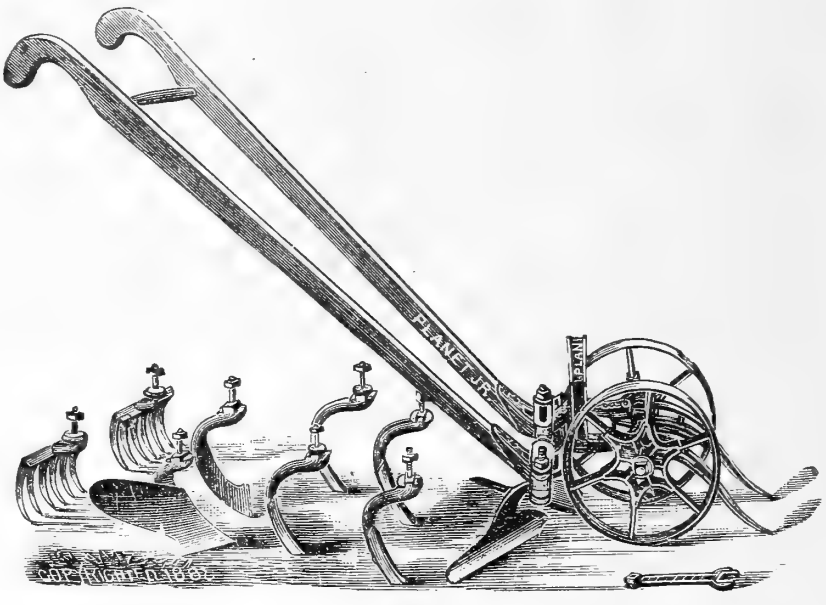
"PLANET JR." WHEEL HOES.

THE "PLANET Jr." DOUBLE-WHEEL HOE.

CULTIVATOR, RAKE AND PLOW COMBINED.

This is an invaluable implement to every tiller of the soil. It is the best and cheapest made for the cultivation of garden vegetables on a large scale, as one man with it will do more work in a day than 6 with ordinary garden hoes. The attachments consist of four cultivator teeth, two rakes, two long hoes and two plows. The wheels being adjustable both sides of the row can be cultivated at the same time. Having leaf guards which allow the cultivation of large plants, it is indispensable for cultivating beets, carrots, peas and beans when already advanced in growth. Taking all in all, it is one of the best cultivators made.

Price, $7.00 net.

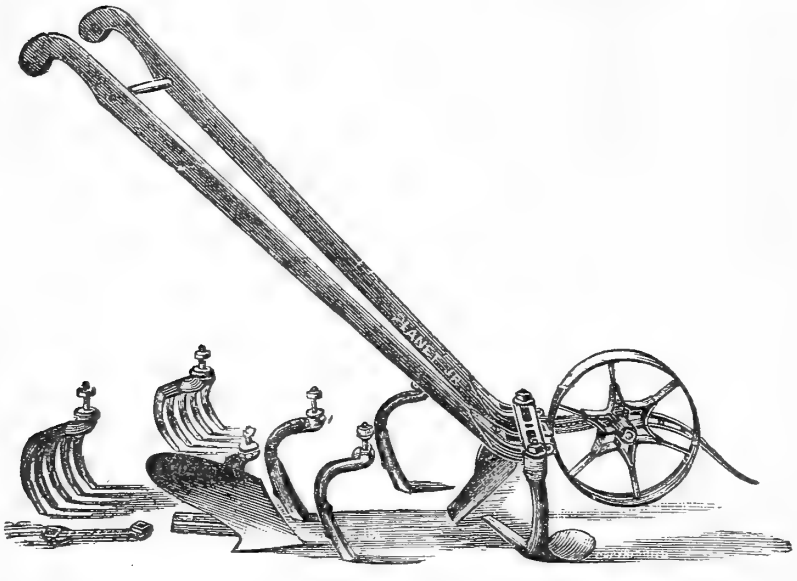


THE "PLANET" JR." SINGLE-WHEEL HOE.

CULTIVATOR, RAKE AND PLOW COMBINED.

This tool is considerably lighter than the "Double Wheel" Hoe; having almost similar attachments it is capable of doing nearly the same kind of work. It is furnished with one pair of rakes, one pair of curved-point hoes, three cultivator teeth, one large garden plow and one detachable leaf guard. All the blades are steel, hardened in oil, tempered and polished. It is used for cultivating both sides of a row at one passage.

Price, $5.50 net.

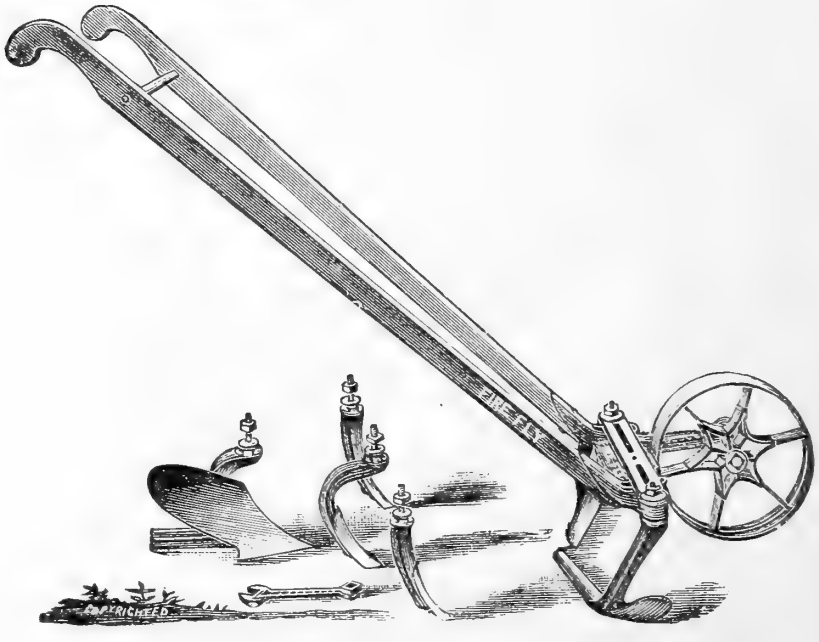


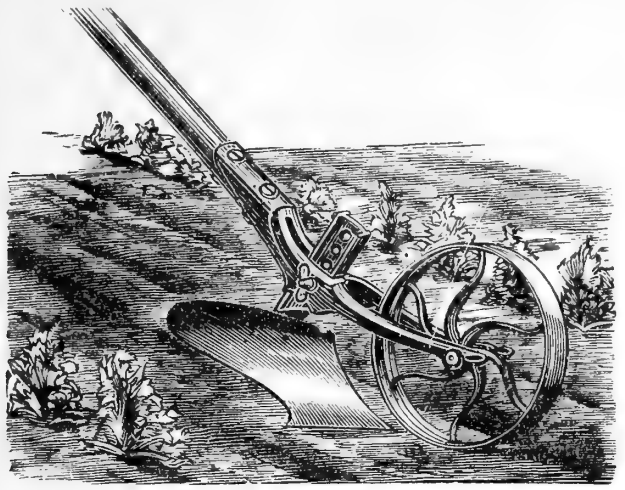
THE "FIRE FLY."

SINGLE-WHEEL HOE, CULTIVATOR AND PLOW COMBINED.

This implement is almost identical with the "Planet Jr.," Single-Wheel Hoe. The tools supplied with it are two curved-point hoes, a set of three cultivating teeth and a large garden plow. The hoes work either to or from the row. The reversible cultivator teeth can be used for deep work in sets of two or three. The garden plow is valuable for furrowing, covering, hilling, etc.

Price, $4.25 net.





THE "FIRE FLY"

Wheel Garden Plow.

This tool is intended for those who have small gardens and a moderate amount of time to work in them. It enables them to raise vegetables for their family or for market, with a small expenditure of labor and time.

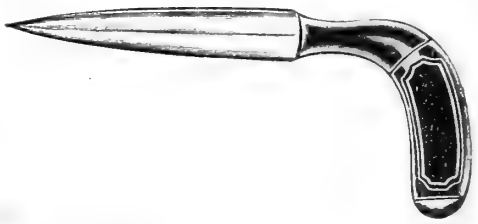
Price, $2.25 net.

CLEVE'S ANGLE TROWEL.

This handy digger was originally intended for digging plantains and other weeds from lawns, its slim blade, made strong by its angular form, being suited for prying and twisting; but it has also found great favor among the ladies as a flower cultivator for loosening the soil in pots, and among young plants for transplanting. The blade and shank are of one solid piece of best steel, set firmly in a nice handle. It serves every purpose of the old form of trowel. Price, No. 1, 40c.; No. 2, 30c.; No. 3, 20c.

IMPROVED PLANTING DIBBLE.

This tool designed for setting out cabbage, celery, tobacco, tomato, onions and similar plants, and for small nursery stock, will commend itself to every gardener, florist, nurseryman and amateur. The price is low; it is made entirely of iron, but of a peculiar pattern which makes it strong and light and more durable than similar tools on the market. It is of convenient shape, neat and attractive in appearance. Price, 40c. each; if ordered by mail, 20c. must be added for postage.



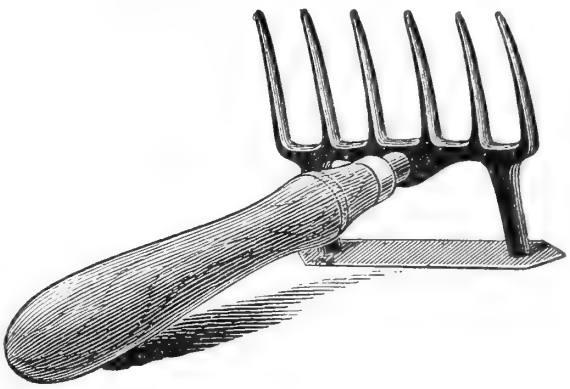
THE COMBINATION WEEDER.

The Latest! The Simplest! The Best Weeder!

Equaled by None! Superior to All!

Combining as it does, both the rake and hoe, it is the most serviceable, durable and the most perfect Weeder on the market.

It is especially adapted to cutting Weeds and Grass, shallow cultivation and stirring of the soil of all Garden Crops, Flower Beds and Nursery stock, that require hand cultivation in the early stages of growth. It is neatly and strongly made of malleable iron (tinned) and the blade of the best spring steel sharpened on both edges, which allows weeding close to the plants. The manufacturers guarantee every Weeder to give satisfaction to the purchaser or refund the price paid, 30c.

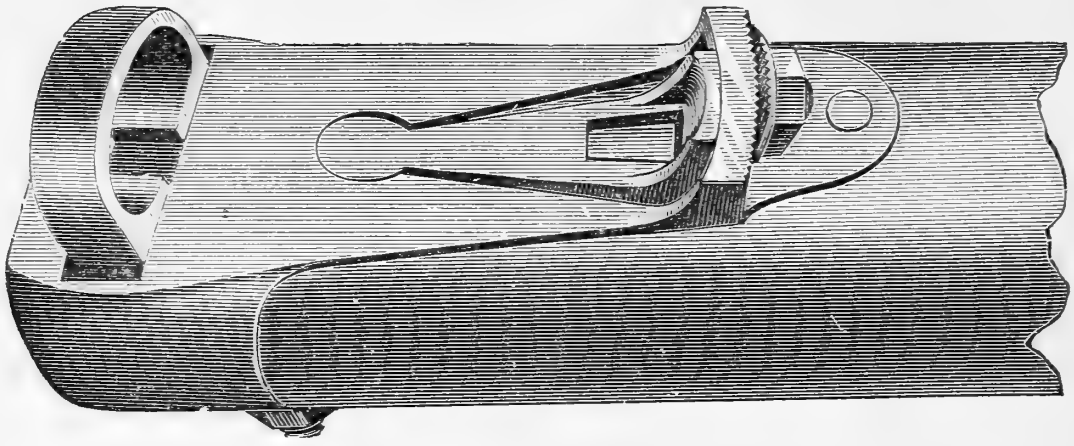


THE LEVIN PRUNER.

This is one of the strongest and best cutting pruners for its size. The cut is very smooth, very much more so compared to other pruners, and is faster than a knife. It is a splendid and cheap instrument for trimming young trees, rose-bushes, vines, etc. Any lady or child can use it and make a half or three-quarter inch cut according to size, without any strain or jar whatever. Give it a trial and be convinced of its good qualities.

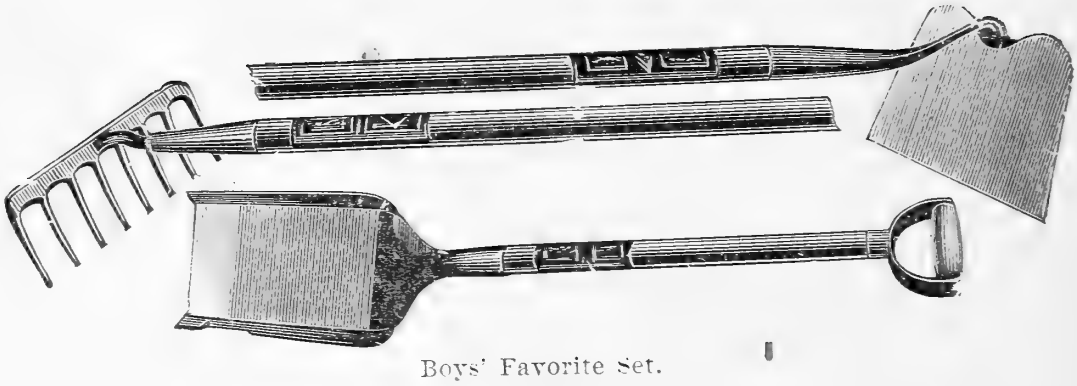
Price—No. 1, 7 inches long, ½ inch cut, $1.00.
" —No. 2, 7 " " ¾ " " 1.25.
By mail, post paid.

GARDEN IMPLEMENTS.



Loop Fastener, swing socket Scythe Snath.

Ladies' Set, Floral Tools. No. 5.

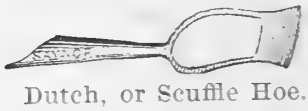


Boys' Favorite Set.

Weeding Hoe and Rake Combined.

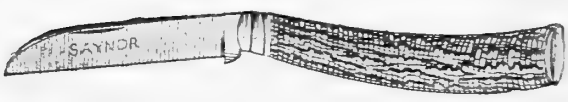
O. G. Hand Pruning Shear.

Lang's Weeder.

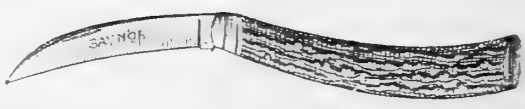


Dutch, or Scuffle Hoe.

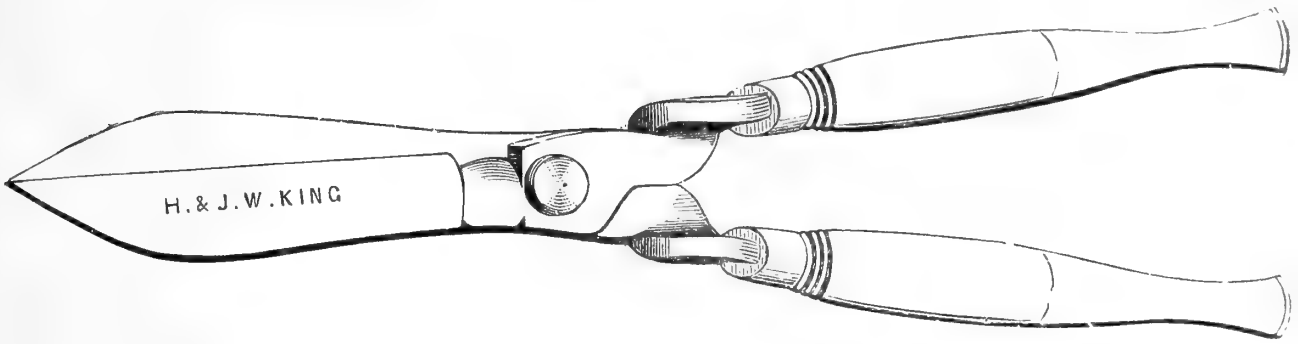
French Perfection Shear.



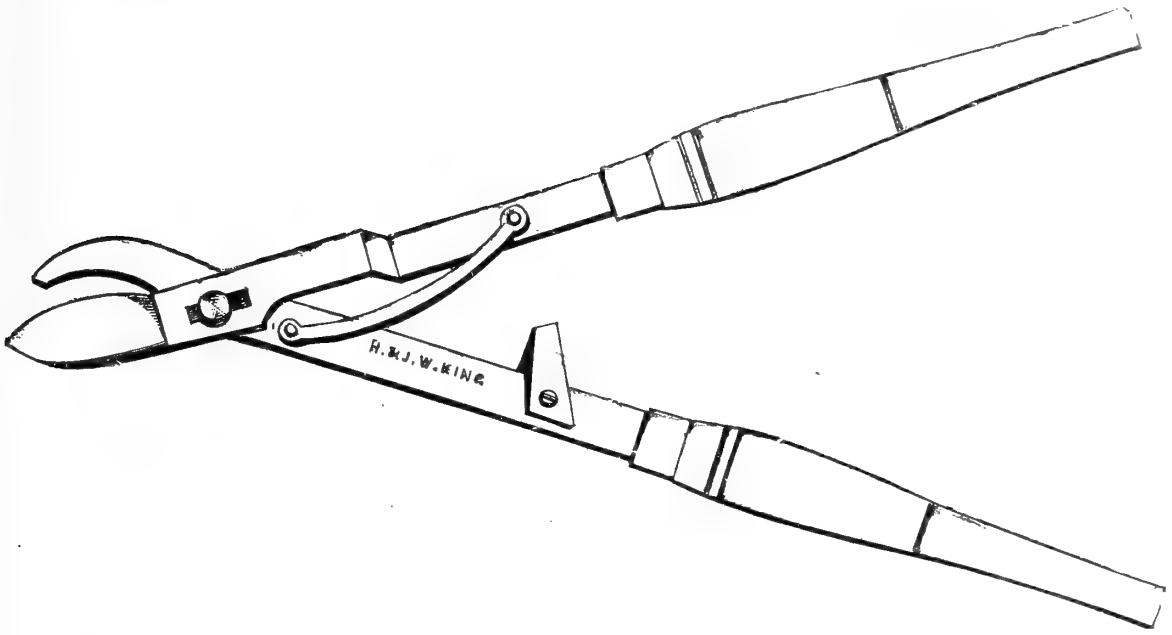
Saynor's Pruning Knife, No. 192,



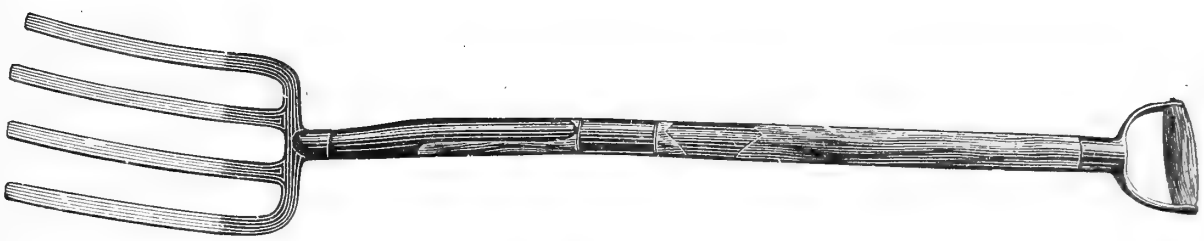
Saynor's Pruning Knife, No. 194.



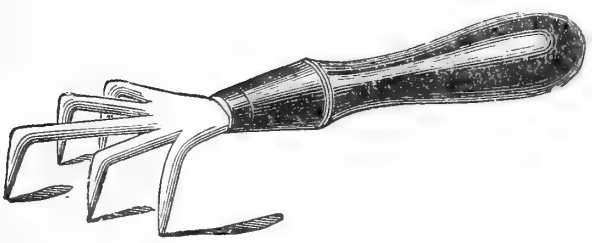
Hedge Shear.



Slide Pruning Shear.

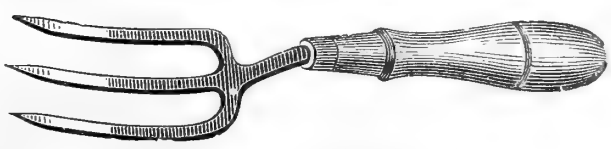


Spading Fork, D Handle.



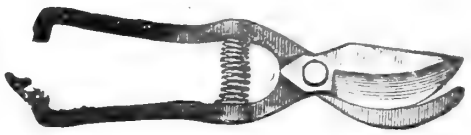
Excelsior Weeding Hook.

Cast Steel Garden Trowel.



Strawberry or Transplanting Fork.

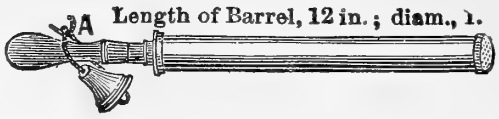
Woodason's Bellows.



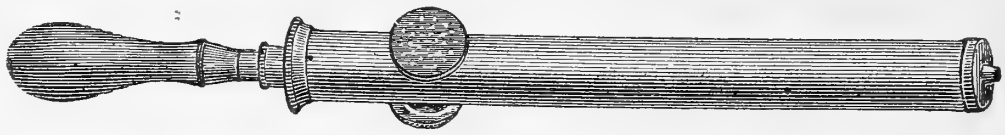
Weiss' Hand Pruning Shear

DEAKIN'S IMPROVED BRASS GARDEN SYRINGES.

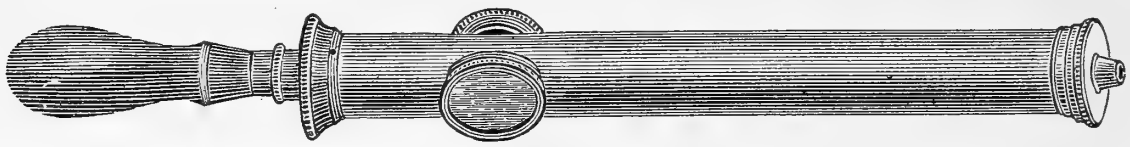
AMERICAN.



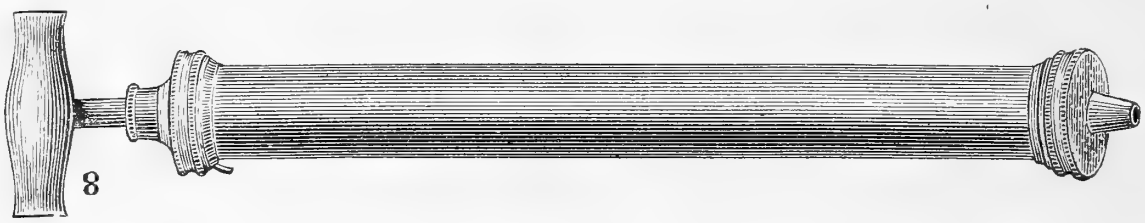
No. A.—Length of barrel, 12 inches; diameter, 1 inch, with one stream and spray rose. Price, $2.25.



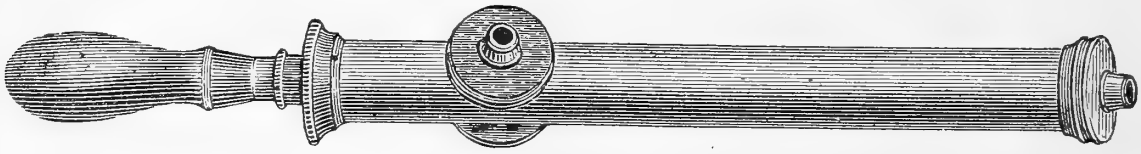
No. 2.—Ladies' Syringe; Length of barrel, 14½ inches, diameter 1 $\frac{5}{16}$ inches; with one stream and two spray roses. The two roses, when not in use, are screwed on the sides of the barrel, as shown in cut. Price, $4.25.



No. 3.—Length of barrel, 18 inches; diameter, 1½ inches. Best Plate Valve Syringe, large size, with one stream, two spray roses and side pieces on barrel. Price, $6.50.



No. 8.—Length of barrel, 18 inches; diameter, 1¾ inches. Best Conical Valve Syringe, extra large diameter and length of barrel, with cross handle and one spray rose. Price, $8.00.



No. 11.—(Second Quality.) Length of barrel, 18 inches; diameter, 1½ inches. Open Rose Syringe, full size. Two spray roses and one stream. Side attachments. Price, $4.25.

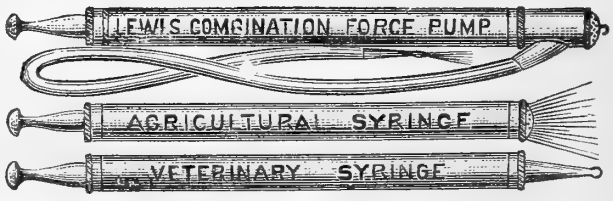
DEAKIN'S NEW SYRINGE.

The cheapest all brass syringe made; full length of barrel, eighteen inches; 1½ inches diameter. The following is what the manufacturers say about it: "In response to the oft expressed desire of our customers for a very cheap brass syringe of large capacity of barrel, we have decided to place upon the market a syringe which we feel confident will give satisfaction. *An all brass, full length valve syringe;* fills quickly and discharges perfectly. Price, $2.25.

The Deakin's Syringes are known to be the best manufactured in America, and are far superior to the imported.

LEWIS' COMBINATION FORCE PUMP.

This Pump is made of heavy mandrel-drawn brass tubing, is 32 inches long, and about 1⅞ inches in diameter, weighing about 4½ lbs. It is a combination of three very useful instruments or machines: a Force Pump, an Agricultural Syringe and a Veterinary Syringe or a nozzle for a round and solid stream.



As a Force Pump, with its three feet of hose attached, it will throw a good sized stream of water from fifty to sixty feet. It is very useful for throwing liquids on fruit trees and for sprinkling lawns. It has a spray attachment, which being attached to the nozzle will produce a spray or solid stream instantly, merely by a single movement of the thumb. The attachment is simple in construction, made of brass and cannot get out of order very easily.

The pump part unscrews near the base, opposite where the hose is attached and the perforated or syringe nozzle is screwed on in its place. This can be used for syringing small plants.
Price, $5.50 net.

LEWIS' AGRICULTURAL SYRINGE.

This exterminator is 26 inches long by $1\frac{3}{8}$ inches in diameter. It is made of Zinc tubing which does not rust by using strong chemicals. The piston is fitted with Lewis' Patent Expansion Valve, which holds the liquid at any point in the tube, except on pressure of the handle, when it discharges the liquid on each hill. It is very simple and durable, also the cheapest syringe on the market. Price, $1.25 net.

CHAMPION FORCE PUMP.

This cut illustrates a Portable Force Pump, which, combining as it does, the efficiency and durability of the higher priced Pumps on the market, is offered at a price which places it within the reach of all.

Being made of brass, with white metal top and base, it will not rust or corrode. It is capable of throwing from 8 to 10 gallons per minute to a distance of 50 feet. For washing windows, carriages, verandas, etc., it has no equal.

By simply adjusting the Sprinkler which goes with each pump, it is adapted for spraying gardens, lawns, etc.; also for throwing liquid solutions of all kinds to destroy noxious insects on plants, vines and small trees.

This Pump is furnished with two feet of $\frac{1}{2}$ inch discharge hose, and a tin nozzle and sprayer. It has no suction hose, as the Pump sets in the water, thus securing perfect suction.

The weight, when boxed for shipment, is about 8 pounds. Price, $4.00.

THE "LITTLE GEM" SPRAYING PUMP.

This Pump is made entirely of brass. The working parts, discharge and connecting tubes, plunger, rod and air-chamber, so that all parts (except the rubber hose and valve packing) that come in contact with the liquid are of brass, making it practical for using any of the insecticides, emulsions, arsenites, fungicides or ammoniacal mixtures now in common use for saving fruit, foliage and flowers from destruction by insects and fungus. It is supplied with two brass nozzles, one for a round or solid stream; the other, our "Combination Vermorel," which throws a fine misty spray, using only a small amount of liquid to cover a large space; and, by a brass needle point operated by a spring, may be condensed to spray a single plant without spraying the ground between the plants, and also serves to clear the nozzle of any obstruction that might lodge in the aperture. It has two feet of vulcanized rubber hose, to which is attached a brass hand-tube, with the solid-stream nozzle firmly fastened, to which the Vermorel is attached or detached by a screw connection, at the pleasure of the operator.

The large capacity of the air-chamber and length of cylinder, together with the power of the inflating valve, enables it to throw a continuous steady stream fifty feet, or a steady spray for thirty seconds or more after the operator stops pumping. The pump is neat in design, very compact, strong and durable, nothing liable to get out of repair or wear out that could not be replaced at a cost of a few cents. The entire weight of the Pump complete is 4 lbs. When boxed ready for shipment, 7 lbs. The price, with both nozzles, including an iron stirrup for holding it firmly in the pail with the foot, is $4.50.

TOBACCO DUST.

I have a supply of this well-known insecticide, which is one of the best and cheapest insect destroyers known. It is one of the most effective agents against the cabbage-fly and worms, which are so injurious and destructive to Cabbage and Cauliflower plants; also for Cucumbers and Melons.

It is used very extensively by the largest Cucumber growers in this vicinity with satisfactory results. It is generally put on the plants in the morning when the dew is on them or just after a rain. After a few applications it has been found to be very effective.

Price, 10 lb. packages, 30c; 100 lbs., $2.00.

HAMMOND'S SLUG SHOT.

An excellent article for destroying cabbage fleas, green lice, turnip and beet fly, potato bugs, grub worms, etc. It is ready for use, and only requires to be dusted on to the plants while they are wet with the dew in the morning, or when applied in the evening, plants should be watered over the leaves half an hour before the Slug Shot is applied.

5 lb. packages, 30c. each.

WHALE OIL SOAP.

Very effective for washing trees and destroying all insects on the bark; it is also an exterminator of insects and lice on plants and shrubbery. Mix at the rate of one pound of soap to two quarts of hot water, and then add five gallons of cold water, apply with watering pot or syringe; used in this manner it will promptly rid cabbage or any other vegetable plants, also rose bushes and all sorts of fruit trees of the aphides and other insects which so often injure them.

Price, 1 lb. boxes, 15c.

The following mixture has been found to be very effective in destroying all parasites and insects on fruit trees.

KEROSENE EMULSION.

This solution is used with great success in killing all sucking insects, such as scales, plant lice, and above all the destructive Icterya or Cottony Cushion Bug on orange and other fruit trees.

The following formula will be found one of the best:

Dissolve ½ lb. of Whale Oil Soap in ½ gallon of boiling water, then add 1 gallon of Kerosene Oil, churn the mixture with a force pump till it forms a cream which thickens upon cooling. For scale insects dilute one part of the emulsion with nine parts of water, and for all other insects one part of the emulsion with fifteen parts of water. This mixture can be very easily made by any person using the above ingredients.

PRICE-LIST OF GARDEN IMPLEMENTS.

Floral Tools.

No. 8. Boys' Garden Set, 3 pieces, Hoe, Rake and Spade	$1 50
No. 80. " " 4 " Hoe, Rake, Spade and Fork	1 75
No. 5. Ladies' Set, 4 pieces, Hoe, Rake, Spade and Fork	80
Ladies' Extra Heavy Set, 3 pieces, Hoe, Rake and Spade	1 25

Forks.

Geneva Spading, Long Handled, 4 tine	75
" " " " " (strapped)	80
Spading Short Handled (strapped)	75c., 1.00 and 1 25
Manure Geneva Long Handled, 4 tine (strapped)	70
" " " " 5 tine "	90
" " " " 6 tine "	1 00
Oxford Hay Forks, 3 tine (5 foot handle)	45
" " 3 tine (6 "	55
" " 4 tine (6 "	60

Hoes.

W. A. Lyndon's Louisiana, No. 00—Field	90
" " No. 0— "	1 00
" " No. 1— "	1 10
" " No. 2— "	1 20
W. A. Lyndon's Louisiana, No. 1—Toy	90
" " No. 2— "	1 00
" Carolina, No. 000—Field	50
" " No. 00— "	60
" " No. 0— "	75
" " No. 1— "	80

HOES (Continued).

Sandusky Tool Co's Planters' No. 2	$ 30
" " " No. 6	40
" " No. 3/0	25
" " No. 4	35
Two Pronged German Forged Steel	60
Enterprise Socket with handle	35
Two Pronged Weeding, with handle	50
Smith's Solid Shank, No. 51, (Pointed)	40
Harper's Hoe and Rake, Combined	40
Dutch or Scuffle, with handle (American)	50
Dutch or Scuffle, without handle (Saynor & Cook), 5 inches 50c., 7 inches	60
Solid Shank Cotton, with handle, No. 00	50
" " Planter's " " No. 000	45
" " " " " No. 2	50
" " " " " No. 4	55
Tiffin Patent Adjustable, No. 1 with handle	55
" " " No. 2 "	65
" " " No. 4 "	75
German Pattern Garden, No. 7/0 "	35
" " " No. 5/0 "	40
" " No. 3/0 with handle	45
" " No. 1/0 "	50
" " No. 2 "	55
" " No. 4 "	60
" " Grub or Sprouting, No. 7/0 with handle	45
" " " " No. 5/0 "	50
" " Two Prong Grape with handle	75

Knives.

H. & J. W. King's Pruning	from 60c. to 1 25
Saynor & Cooke's "	from 75c. to 1 50
Saynor & Cooke's Budding	$1.00 and 1 40
Geo. Wostenholme's Pruning I. X. L.	75
Maher & Grosh's Budding, (Cocoa handle)	40
" " " (Ebony handle)	60
" " " (Ivory handle)	75

Potato Hooks.

Long Handled, 4 tine, (Goose Necked)	40
" " 6 tine	55 and 65
" " 4 tine (flat)	45
" " 4 tine (round)	40
" " 4 tine, Extra Heavy	55

Pruning Saws.

Diston's 12 inch No. 7	90
" Compass 14 inch	50
" Crescent 12 "	75
" Duplex 16 "	1 10
" 18 inch No. 7	1 25
Brown's 18 inch	75

Rakes.

Geneva Tool Co's, Cast Steel, 10 teeth, (Braced)	45
" " " " 12 " "	50
" " " " 14 " "	60
" " " " 16 " "	70
Challenge Rakes, (Malleable Iron) 10 teeth	30
" " " " 12 "	40
" " " " 14 "	45
" " " " 16 "	50
Harper's Rakes, " " 10 "	25
" " " " 12 "	30
" " " " 14 "	35
" " " " 16 "	40
Wood Head Rakes (Wrought Iron teeth)	40
English Wrought Iron Rakes without handle, 10 teeth	50
" " " " " " 12 "	60
" " " " " " 16 "	80
Wooden Hay Rakes	25

Spades.

Ames' Long Handled (extra heavy)	$ 1 10
" " " Bright	90
Hadwins' Long Handled	65
Blair's Spades, Long Handled	80
French Steel, Bright, without handles	$1 00 to 1 25
Toy for Boys or Ladies	40

Shovels.

Ames' Bright Long Handled (round point)	90
Hadwin's Long Handled (round point)	65
Hadwin's " " (square)	65
Toy for Boys or Ladies	50

Scythe Snaths.

Handles for French Scythe Blades (with Ring and Wedge)	85
No. 1, (American) Ring and Plate Heel	60
No. 0, " " "	50
No. 00, Swing Socket	65
No. 2, Two Ring Bush	75

Sickles.

English (welded), No. 2	40
" " No. 3	45
Scotch (riveted back) No. 0	50
" " No. 1	60
English " No. 2	50
" " No. 3	60
French Sickles, No. 1	35
" " No. 2	40

Shears.

Hedge Shears, 8 inches	2 00
" " 10 "	1 75 and 2 25
" " 12 "	2 50
Pruning Shears, No. 1, Wiss. A	1 75
" " No. 2, "	1 65
" " No. 3, "	1 50
" " No. 4, "	1 40
Pruning Shears, No. 2, Wiss. B	1 65
" " No. 3, "	1 50
" " No. 109, " Steel Springs, 9 in.	2 00
" " No. 110, " " " 10 "	2 25
" " No. 111, " " " 11 "	2 50
Wiss Practical Orange Clippers	1 00
" Orange Shears	90
Pruning Shears, Hessenbruch (German) No. 565—23c/m	1 00
" " " " Ladies Favorite for Roses, No. 37—14 c/m	1 00
" " " " No. 8—20½ c/m	75
" " " " No. 8—23½ c/m	1 00
" " " " No. 1—22 c/m	75
" " " " No. 1—24 c/m	1 00
" " O. G. No. 2, Saynor, Cooke & Ridal	1 50
" " No. 655, " " " 7 in	1 65
" " No. 655, " " " 8 "	1 80
" " French Perfection, No. 1	2 75
" " " " No. 2	2 50
" " Extra Heavy French, (Pat. Brass Spring) No. 1 and No. 2	3 00
" " Heavy French, (Faber) No. 2	2 75
Slide Pruning Shear, No. 1, Saynor & Cooke	2 50
" " " No. 2, " "	3 00
" " " No. 3, " "	3 50
" " " No. 4, " "	4 00
Lopping Shears, (Eagle Claw) English, No. 1	2 75
" " " " No. 2	3 00
Eagle Pruning Shears, (American)	2 50
Water's Improved Tree Pruners 10 feet	2 25
" " " " 12 feet	2 50

Scythes.

French, First Quality (polished)	18 inches	$ 75
" " " "	20 "	80
" " " "	22 "	85
" " " "	24 "	90
" " " "	26 "	1 00
" " " "	28 "	1 10
" Second Quality (blue)	22 "	75
" " " "	24 "	80
" " " "	26 "	90
" " " "	28 "	1 00
French (Croix brand)	22 inches	70
" "	24 "	75
" "	26 "	80
" "	28 "	90

Have also the above blades bridled @ 40c. extra.

American Grass, 26 to 28 inches	75
Blood's Champion Bramble, 26 to 30 inches	75
New Orleans Bramble, 20 to 24 inches	65

The French Scythe Blades are imported by me, and are of best quality; none better can be had.

Woodason's Bellows.

Double Cone (for insect powder)	3 00
Single " " "	1 00
Atomizer (for liquid and powder)	2 00
Pure Pyrethrum Powder for above bellows	¼lb. box 15c.; ½lb. 25c.; 1 lb. boxes 50

Watering Pots.

4 Quarts, Japanned, Screw Tops	35
6 " " "	40
8 " " "	50
10 " " "	65
12 " " "	75
16 " " "	90
Extra Heavy (hand made) No. 1, 20 Quarts	2 00
" " " No. 2, 16 "	1 75
" " " No. 3, 14 "	1 50
" " " No. 4, 10 "	1 25
" " " No. 5, 8 "	1 00

The latter are made of the best material, and have very fine rose heads; they are made by a mechanic who has been furnishing the vegetable gardeners for years with these pots, and has improved upon them until they are perfect for the purpose.

Miscellaneous.

The Granger Broadcast Hand Seed Sower	$4 50
Excelsior Weeding Hooks	20
American Transplanting Trowels	10c. to 20
English " " 5 inch	35
" " " 7 "	50
Diston's Transplanting Trowels, (solid shank) 6 inch	45
Enterprise " " " 7 "	15
Transplanting Forks, (Steel)	35
" " (Malleable Iron)	20c. and 25
American Briar Hooks	1 10
Lang's Hand Weeder	25
Fork Handles	15
Hoe Handles	10c. and 20
Rake Handles	15
Spadé and Shovel Handles	20
Edging Knives for trimming Grass borders	35c. to 50
Diston's 10 inch Flat Files	25
" 12 " "	35
Trowbridge's Grafting Wax	per lb. 40c.; per ¼lb. 15
Scotch Whetstones	20
American Indian Pond Whetstones	10
American Berea Whetstones	10
French Whetstones	15
Hammer and Anvil for beating French Scythes	1 50
Raffia, (for tying)	per ¼lb. 10c.; per lb. 30

LIST OF A FEW VARIETIES OF ACCLIMATED FRUIT TREES,
SUITABLE FOR THE SOUTHERN STATES.

HOW TO PLANT TREES.

Although there are numerous books and papers published on arboriculture, giving necessary informations how to plant trees, I am often asked by some of my customers how to plant and prepare the soil for fruit trees. I therefore deem it necessary to give here some short instructions.

Make the ground thoroughly mellow at least 15 inches deep and 3 or 4 feet wide each way, if holes are to be dug; thorough plowing of entire plat is preferable if it can be done. Prune the tree close; straighten out roots evenly, having the tree standing the same depth it was in nursery; work fine, mellow soil (but no manure) among the roots, and when they are all covered an inch or two, press the soil firmly down with the foot of a broad-ended maul, after which fill up evenly with loose soil, over which place a mulch of rotten straw, or manure, 3 or 4 inches deep, extending three feet every way from the tree. Whether the mulch is put on or not, keep the soil well cultivated about the tree. In this climate all trees should be headed low and leaned a little to the northwest when planted.

DISTANCES APART TO PLANT TREES, VINES, Etc.

Peaches, Plums, Standard Pears, Apricots, in light soil, 16 to 18 feet; in strong soil, 18 to 20 feet each way.

Figs should be planted 20 to 24 feet apart.

Dwarf Pears, Quinces, etc., 10 to 15 feet apart.

Japanese Persimmons, 10 to 12 feet.

Grapes, such as Delaware, Ives Seedling, which are of slow growth, 6 to 8 feet apart each way.

Thrifty growers, like Concord, Triumph, Goethe, etc., 8 to 10 feet apart.

Herbemont, Cynthiana, etc., which are the most rapid growers, 12 feet apart, in rows 3 feet wide.

DIRECTIONS FOR PLANTING LE CONTE PEAR TREES.

Plant the tree up to the collar in a large hole, filling it with a rich loam in which some fertilizer has been mixed; press the earth in firmly around the roots, using water in dry weather; trim back one-half of each year's growth till the fourth year, then trim only ingrowing and chafing limbs with a view to spreading the head. Plant thirty feet each way. Clean culture and broad-cast manuring are best. For best results plant large *one year* trees, and only those *grown from cuttings.*

LE CONTE PEAR.

This new Southern pear is as vigorous in growth as the China Sand, and is an enormous bearer. The fruit is large, pale yellow, juicy melting and of good quality, doing better in the South than elsewhere. It bears transportation well. Time of ripening begins about the middle of July. It promises to be the pear for the South.

Rooted one year old trees, 4 to 6 feet, 20c. each; $15.00 per 100; $2.00 per dozen; 2 year old trees, 6 to 8 feet, 25c. each; $2.50 per dozen, $18.00 per 100.

KIEFFER'S HYBRID PEAR.

A variety from Philadelphia; a hybrid between the China Sand and Bartlett, both of which resemble it in wood and foliage. It has the vigor and productiveness of its Chinese parents. Fruit large and handsome; bright yellow and red cheek; flesh tender, juicy and well flavored. It comes into bearing at an early age. Ripens end of September, or beginning of October. It is an excellent sort for preserving.

One year old trees, branched, and fine, 20c. each; $2.00 per doz.

BARTLETT PEAR.

This well-known variety, one of the finest pears in cultivation, has been successfully cultivated here; but occasionally it has blighted. Since the introduction of the Le Conte, trials have been made with success, that is by grafting this, and other fine varieties, upon the Le Conte;—by so doing, the trees are imparted with the vigor of the latter, growing stronger, and making finer and healthier trees. I offer trees grafted on the Le Conte stock, for sale.

One year old trees, 3—4 feet, 25c. each; $2.50 per dozen.

DUCHESS D'ANCOULEME PEAR.

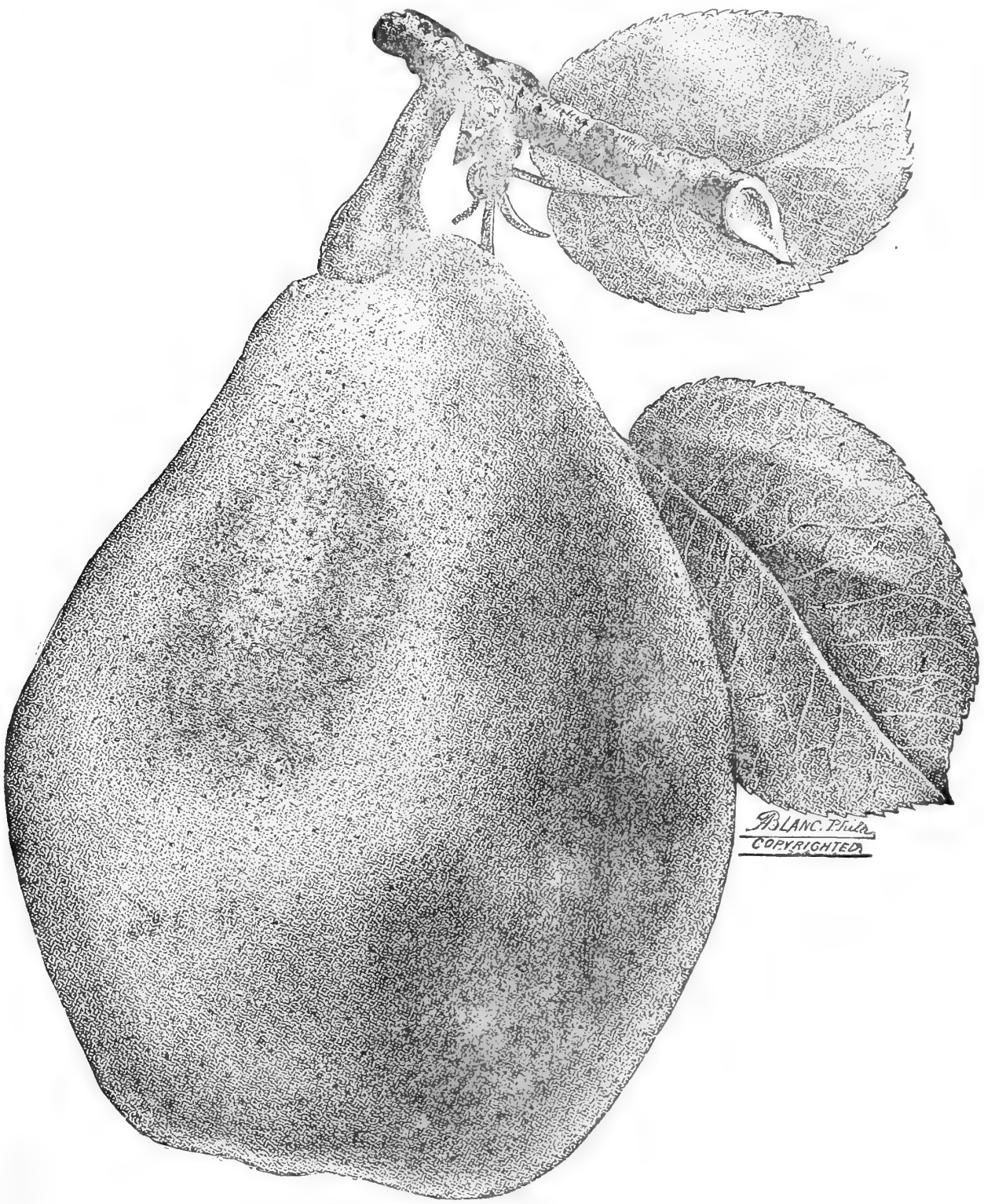
Another popular variety which does well in this section.—On Le Conte stock. One year old, 25c. each; $2.00 per dozen.

HOWELL PEAR.

One of the best for here. Tree is an upright free grower; is an early and profuse bearer. One year old, 25c. each; $2.50 per dozen.

CLAPP'S FAVORITE PEAR.

A large new pear, resembling the Bartlett; but does not possess its musky flavor. Fine texture; juicy, with a rich, delicate vinous flavor. It is very productive. On Le Conte Stock. One year old, 25c. each; $2.50 per dozen.



Le Conte Pear.

JEFFERSON PEAR.

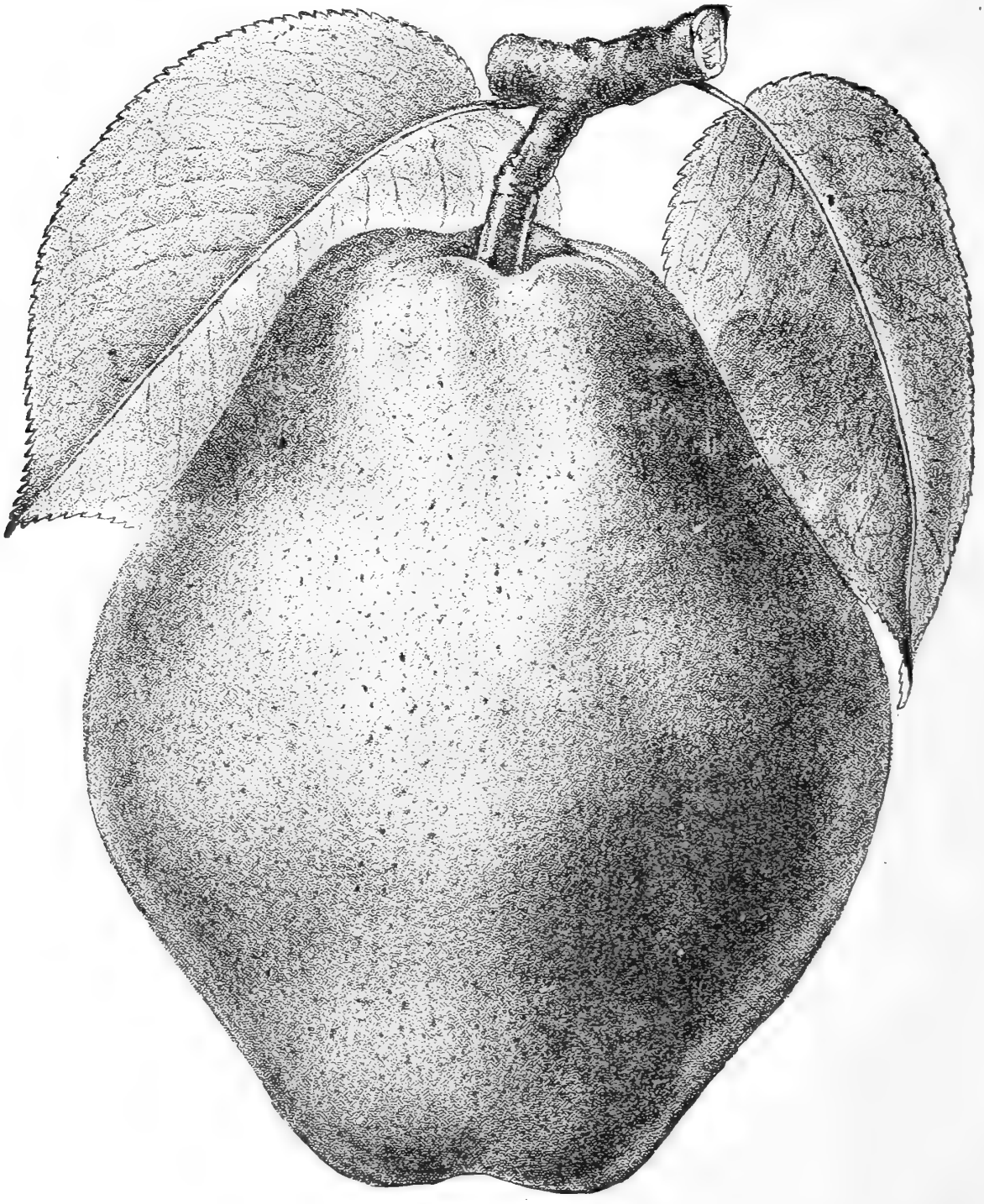
Another blight proof pear, very distinct in habit and growth from other varieties under cultivation. Cannot be stated yet under what particular type or species it should be classed.

It ripens in Central Mississippi from the 1st—10th of June, is in the market with the earliest peaches, and brings the highest prices. It is above medinm size, color bright yellow, with a bright deep crimson cheek. It is ripe and marketed before Le Conte is ready to ship. It is poor in flavor.

One year old, 25c. each; $2.50 per dozen.

CARBER'S HYBRID PEAR.

A cross between the China Sand and Louise Bonne the Jersey; grows vigorous and productive. Shape roundish, large red cheek. It is juicy, good flavor with slightly acid. Price, 25c. each; $2.50 per dozen.



Kieffer Pear.

IDAHO PEAR.

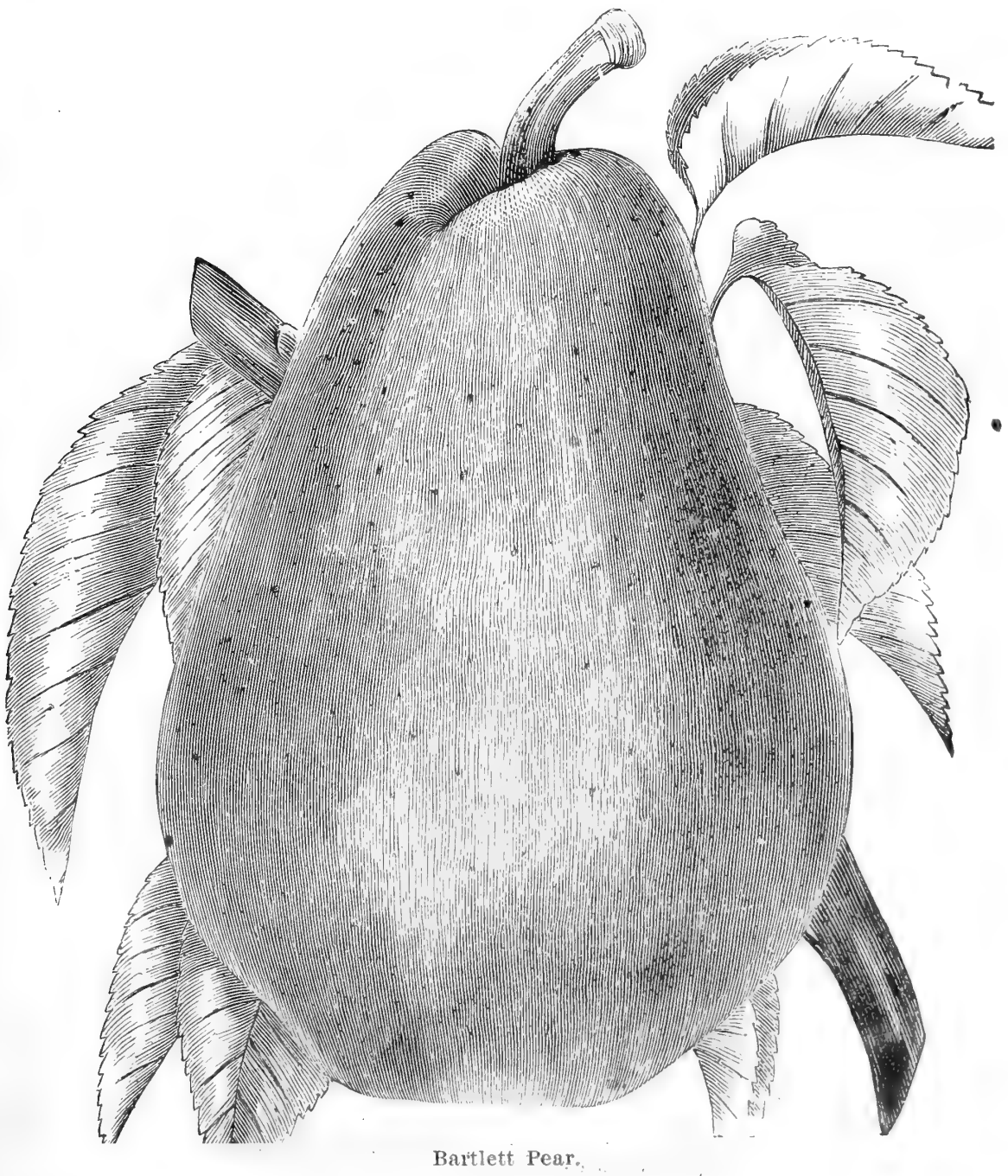
This new pear has been so well described and praised up by Testimonials from the most prominent Pomologists and Fruit Growers in my former Garden Manual that it requires no further description here. It is certainly one of the most noteworthy of all new varieties which have lately been introduced. Although it originated near Lewiston, Idaho, it is like the well-known Le Conte, quite hardy in our Southern climate, a vigorous grower, and said to be entirely blight proof.

The fruit is very large and handsome, irregular globular, somewhat depressed. The cavity of the fruit is very irregular, basin shallow and pointed; calyx very small and closed; core very small; skin golden yellow with many russety spots; flesh melting, juicy, with a sprightly, vinous, delicious flavor. It ripens in September and October.

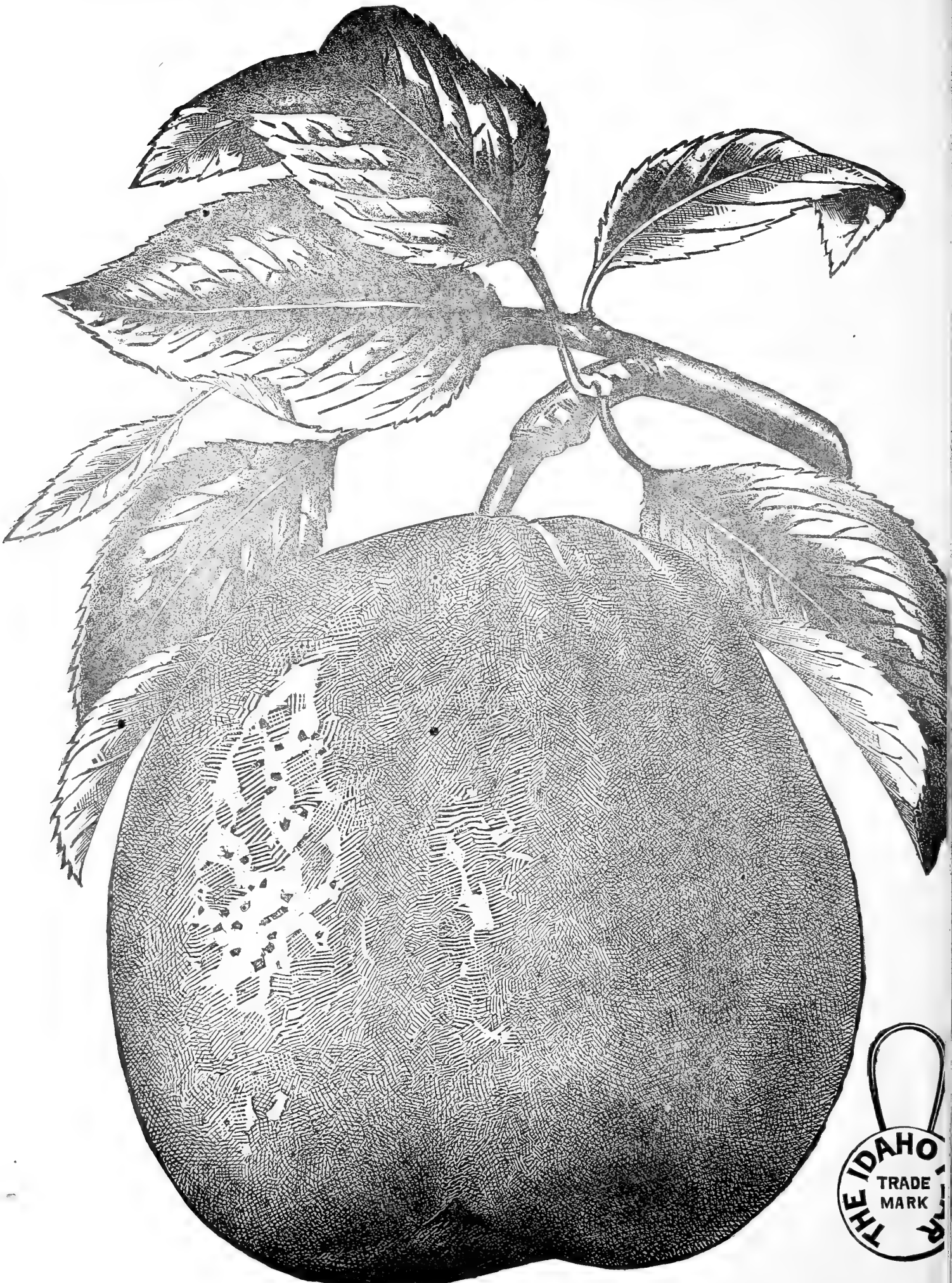
Wherever the tree has fruited it proved an abundant bearer. In this section it has however not fruited yet. This pear is certainly worthy of a trial by every person interested in raising fine fruit.

One year old trees, 30c. each, $2.50 per dozen; two year old trees, 40c. each, $4.00 per dozen.

All on Le Conte stock.



Bartlett Pear.


THE IDAHO
TRADE
MARK

SATSUMA OR BLOOD PLUM.

This Plum is from Japan; it has been fruited in California a few years ago. The following is the description given by the introducer, Mr. Luther Burbank: "It is nearly six weeks earlier than the Kelsey, firm flesh; much larger, of finer quality, color and form. It is an early and enormous bearer, and the trees grow with more vigor than any of the other varieties of Japan Plums I have fruited here. The seed is also the smallest yet seen."

The flesh is dark red, solid color from skin to pit, firm, rather juicy, and of good flavor.

Price, 30c. each; $3.00 per dozen.

OGAN AND BOTAN PLUMS.

Two other Japan varieties. They are vigorous, handsome growers; branches smooth with rich light green foliage.

The Ogan is a large yellow variety, ripens early, and is very sweet. The **Botan** is very large, reddish blue; a good keeping and shipping fruit. Japan fruit does well here generally; everybody should try a few of these plums.

Price, 25c. each; 2.50 per dozen.

APRICOT PLUM.

(PRUNUS SIMONI.)

This plum comes from North China. It was fruited for the first time in 1885, by a well-known nurseryman in Texas. The fruits, when ripening, shine like apples of gold, and become of a rich Vermillion when ripe. It is very firm and mealy, and equal to any plum; has never been attacked by the Curculio. It will carry any desired distance.

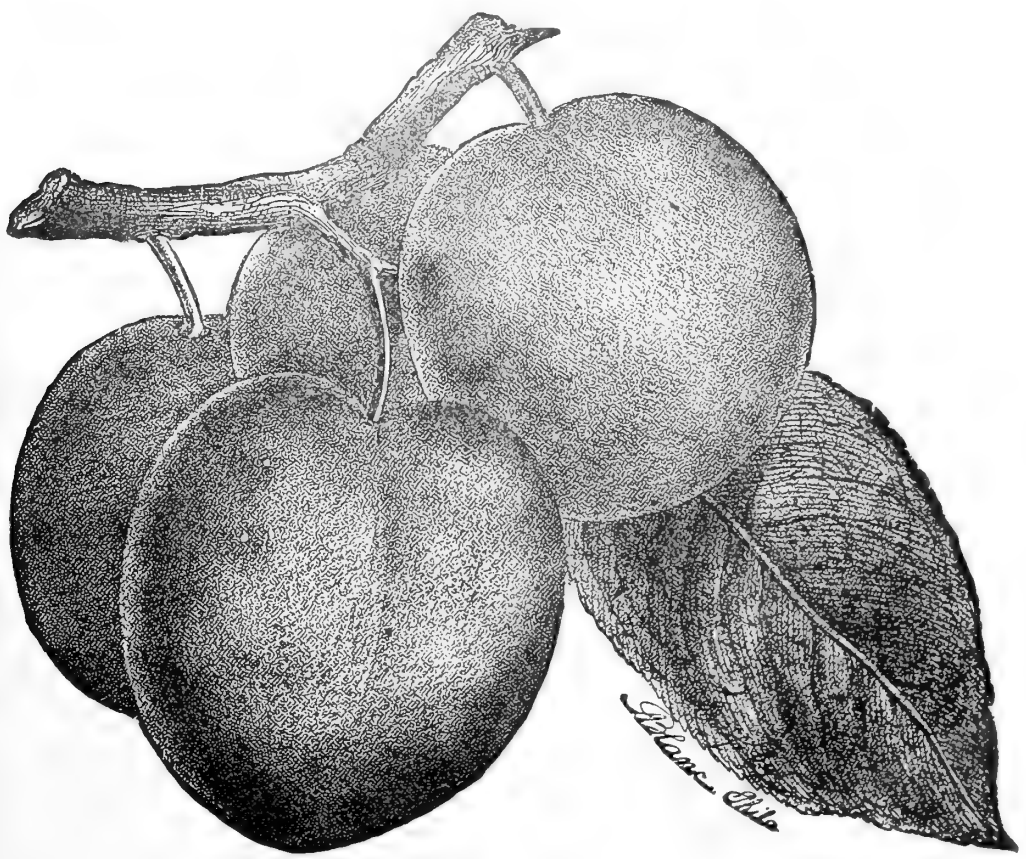
Tree very thrifty, upright; early and abundant bearer.

Price, one year old trees, 25c. each; $2.50 per dozen.

WILD GOOSE PLUM.

A native variety from Tennessee, where it is highly esteemed for market. It is a strong grower; the fruit is large and of good quality.

Price, 25c. each; $2.50 per dozen.

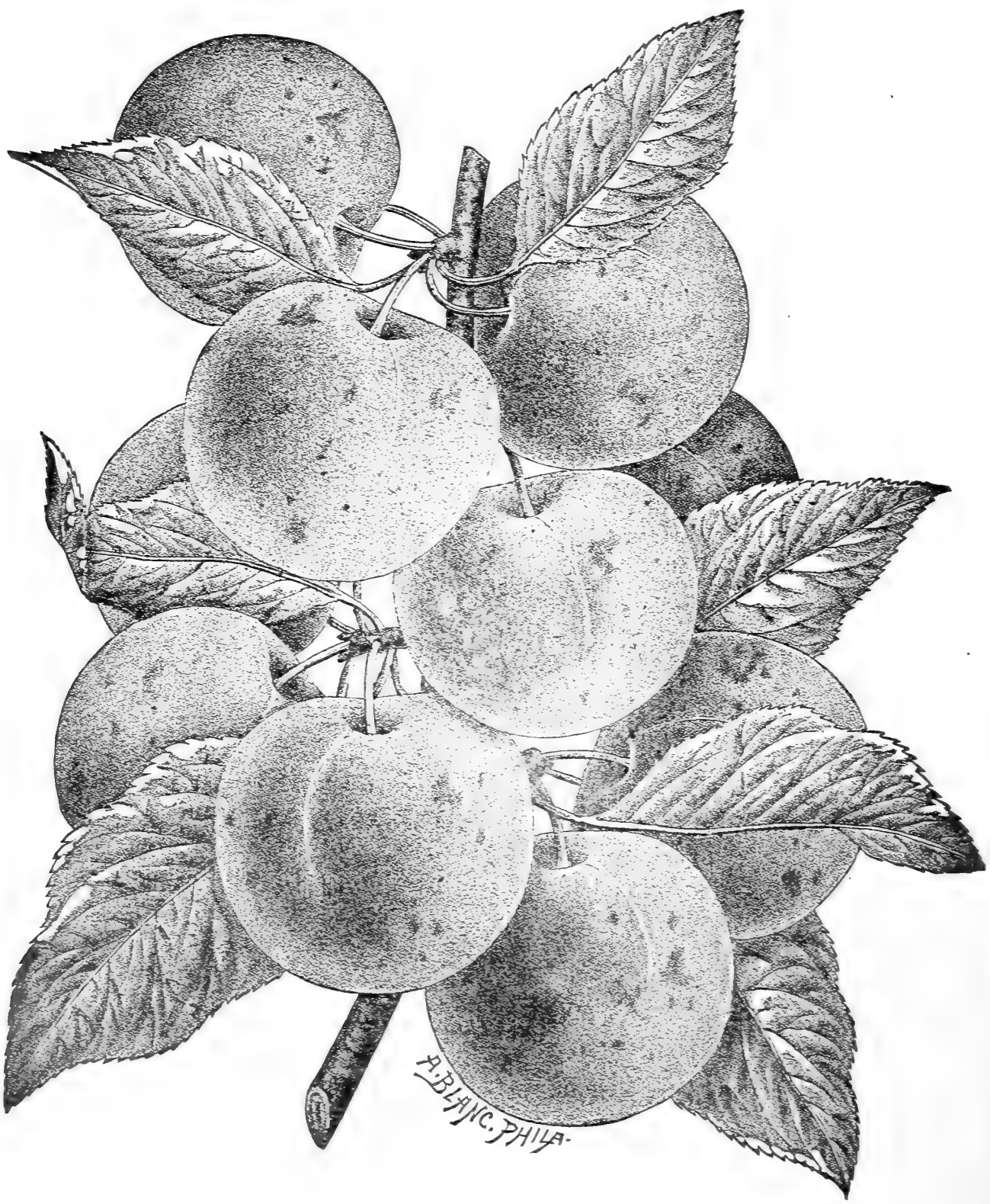


Wild Goose Plum.

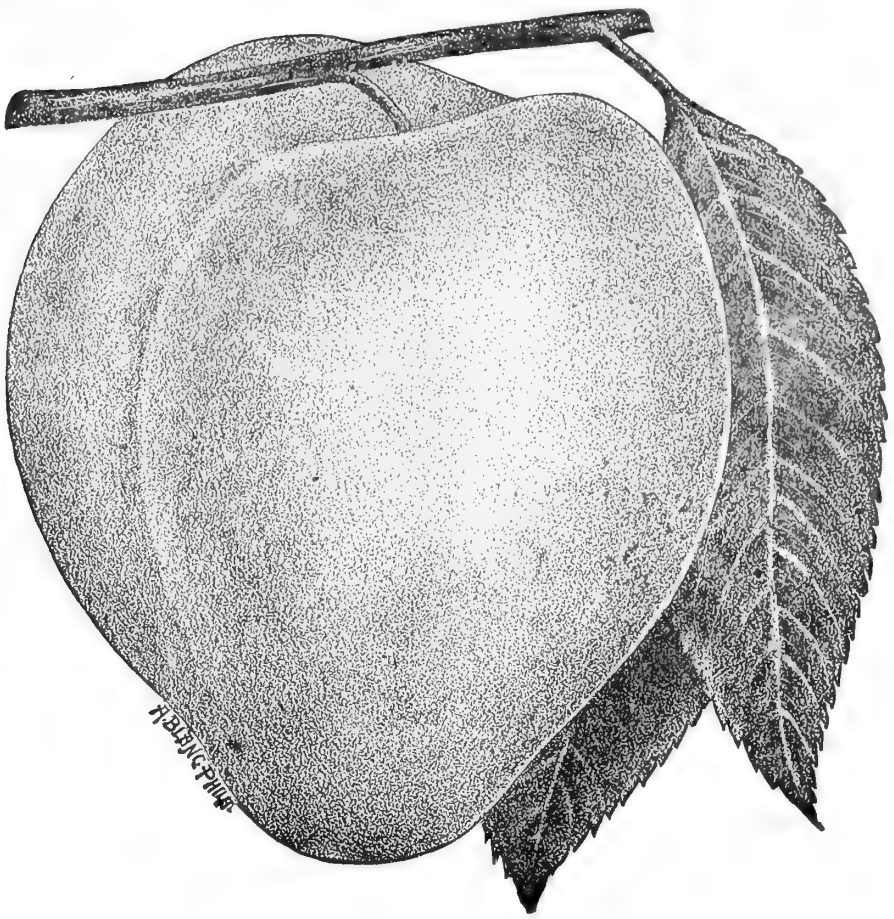
MARIANNA PLUM.

This plum originated in Texas, supposed accidental seedling of the Wild Goose. It is a rapid grower. Grows from cuttings; it never throws up any suckers or sprouts. Fruit as large, good and handsome as the Wild Goose; one to two weeks earlier; hangs on better; ships well; ripens and colors beautifully, if picked a few days previously. It is the best of the Chickasaw type. This variety and the Wild Goose should be fertilized by the common Chickasaw kind to have it bear well.

Price, 5—6 feet high; 20c. each; $2.00 per doz.; $15.00 per 100.



Marianna Plum.



Kelsey's Japan Plum.

KELSEY'S JAPAN PLUM.

The *Prunus Domestica*, or European varieties, have proven worthless in the South generally. The above will take their place promising good results, being of Asiatic origin. The Kelsey Plum is from two to two and a half inches in diameter, heart-shaped, rich yellow, with purple cheek. Parties who have been fruiting it here in the South pronounce it the most magnificent plum they have seen; it weighs from 4 to 6 ounces. It excels all other plums for canning and drying, and will carry for a long distance better than any other kind. Matures middle of August to September. It has fruited in this neighborhood this past season; it is a most delicious fruit, and every one who plants fruit trees should not fail to plant some. I consider it a great acquisition. Price, 25c. each; $2.50 per dozen.

PEACH TREES.

I have a fine assortment of Southern grown Trees, selected from a very reliable Nursery. They consist of the following varieties, viz:

FREE STONES.

Jessie Kerr.
Amsden.
Alexander.
Early Louise.
Fleitas St. John.
Mountain Rose.
Honey.
Foster.
Crawford's Early.
Amelia.

FREE STONES

Stump the World.
Thurber.
Old Mixon.
Crawford's Late.
Smock.
Picquet's Late.

CLING STONES

General Lee.
Stonewall Jackson.
Old Mixon.
Lemon.
Heath.
Nix White Late.
Stinson's October.
Butler.
Chinese.

As they follow in the list they ripen in succession.
Price, 25c. each; $2.50 per dozen.

GRAPE VINES.

Have some selected varieties for the table, and for making wine. The following is a list of them, viz:

Moore's Early. Large size and very early, good for table use. Price, 20c. each.

Delaware. Well known. Regarded as best American Grape; it does well in the South, with good soil and high culture. Price, 20c. each; $2.00 per doz.

Goethe. Light Pink; very fine for table use. It is the best of the Roger's hybrids. Price, 20c. each; $2.00 per dozen.

Triumph. This is a late variety; bunches very large, golden when fully ripe, fine as best foreign, and sells equally well; melting pulp, small seeds, vigorous as Concord, of which it is a hybrid seedling. Rarely it rots; stands pre-eminently at the head as a late table grape. Price, 20c. each.

Norton's Virginia. An unfailing, never rotting, red wine grape of fine quality. Price, 20c. each; $2.00 per dozen.

Cynthiana. Very much like the latter; same price.

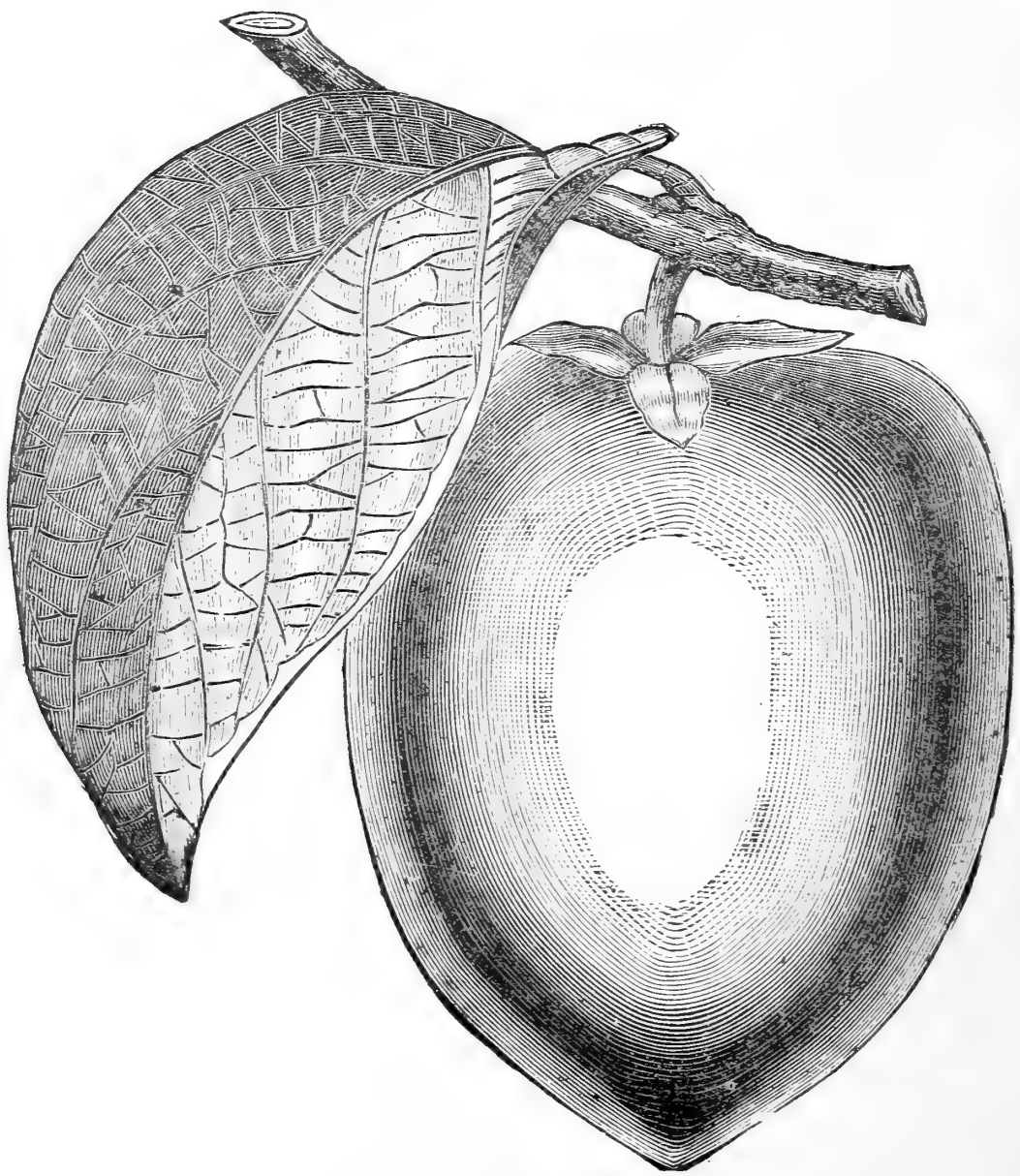
Concord. Early; very popular; good for market. Some years it rots. 10c. each; $1.00 per dozen.

Ives. Ripens with the Concord. Good for wine; vigorous and productive. 10c. each; $1.00 per dozen.

Herbemont (McKee.) A most popular and successful red or purple grape in the South; excellent for table and wine. McKee is identical with it.

Price, 20c. each; $2.00 per dozen.

Prices for other Nursery Stock will be given on application.



Japan Persimmon. (Hachiya.)

JAPAN PERSIMMON.

This valuable fruit has been fruited for the last few years. Most varieties are of excellent quality; twice and three times as large as the native kind; very attractive when the fruit is ripe. I had some which weighed a pound, very sweet and of a most delicious flavor. As they are of easy culture and do well here, it is a profitable fruit to grow.

Assorted named varieties. Price, 30c. each; $3.00 per dozen, large size.

CELESTE OR CELESTIAL FIG.

I have only a limited supply of one year old trees of this variety. They have been raised from cuttings in a sandy loam; are well rooted, and raised to a single stem; not in sprouts, as is often the case, when raised from suckers taken off from old trees.

The cultivation of this fruit has rather been neglected, which should not be so, as the fig is always a sure crop, with very little attention. It has commenced to be an article of commerce, when preserved; shipped from here it sells quite readily North, put up in that way. The Celeste is the best for that purpose, not liable to sour like the yellow skinned varieties, and sweeter than other dark skinned kinds.

Price, 25c. each; $2.50 per doz.; packed and delivered on steamboat or railroad depot.

NEW WHITE ADRIATIC FIG.

This valuable variety has been introduced into this country from South Italy, where it is esteemed as the finest of all Figs. The tree attains an enormous size and is an immense bearer, bearing more than any other variety known.

The fruit is of the finest quality; the skin is thin like paper, thinnest at the base, and not like most other figs thicker at the point. The pulp is very sweet, with small seeds, without a hollow space in the center; in fact the whole fruit is one solid pulp.

The size of the fruit is larger than the white Smyrna Fig and a great deal finer in flavor. It begins to ripen in July, and Figs ripen from that time continually until frost. The principal crop is in August.

This variety is extensively grown in Italy for drying, and the finest dried Figs of commerce are obtained from it. Since our climate is well adapted to its culture it will in time prove the most valuable of all Figs.

Stock very limited.

Price, 40c. each; $4.00 per doz.

NEW POMEGRANATE "SPANISH RUBY."

This new variety of the well-known Pomegranate is one of the most beautiful and finest of all fruits of our temperate climate. Fruit very large, as large as the largest apple; eye very small, skin thick and smooth, pale yellow with crimson cheek; meat of the most beautiful crimson color, highly aromatic and very sweet. The Spanish Ruby is a fine grower and good bearer, and the fruit is excellent for shipping, as it will keep for a long time.

It ripens shortly before Christmas and could be shipped to Northern cities, where during the holidays it would attract great attention.—Price, 30c. each.

LARGE SWEET POMEGRANATE.

Same as above, excepting in color of seed and flavor. Price, 25c. each; $2.50 per dozen.

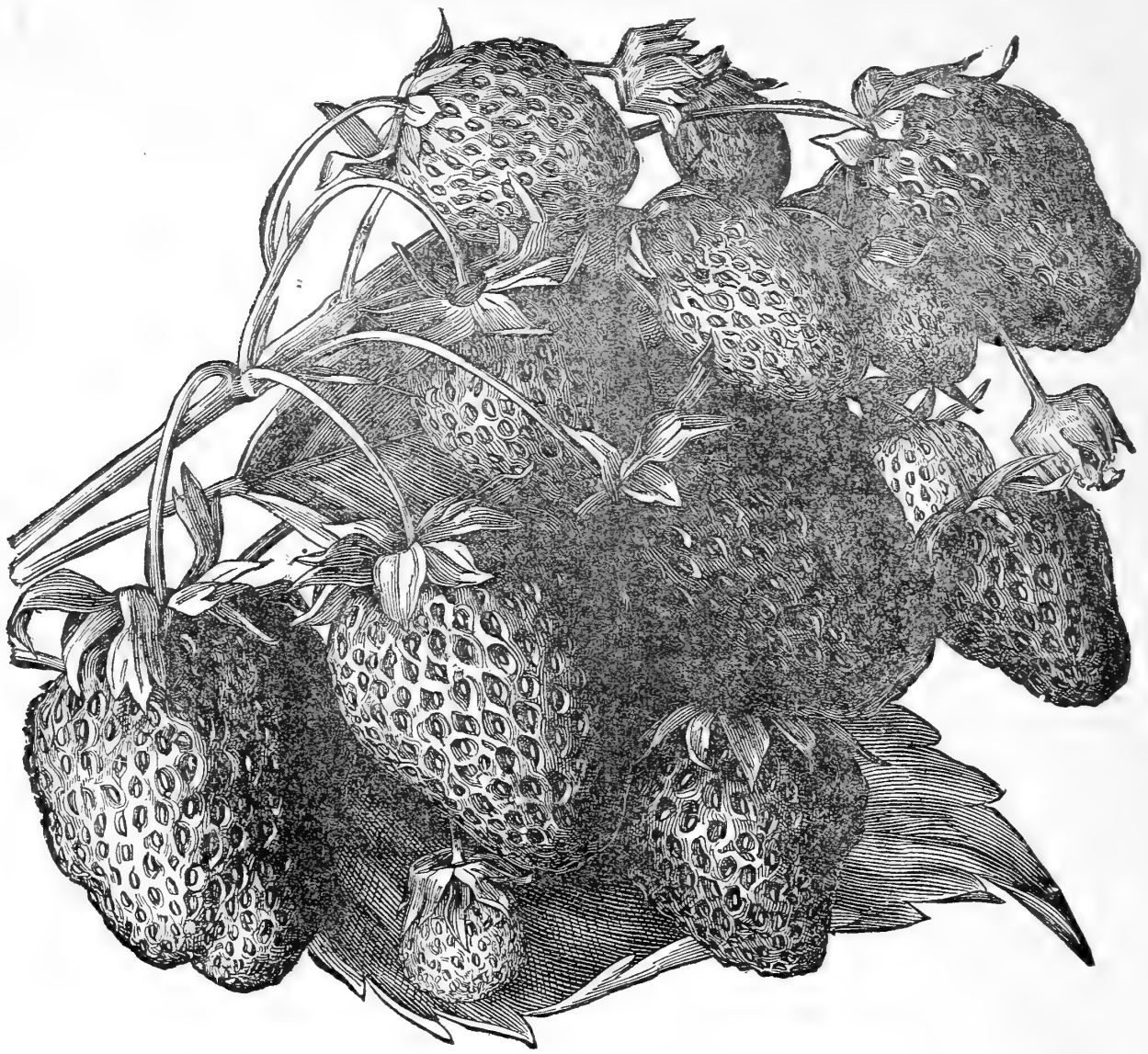
MICHEL'S EARLY STRAWBERRY.

We have various sorts of soil in Louisiana, and the Strawberry suitable to and succeeding equally well in poor or rich land, can only be determined by practical experiment.

There are but few varieties which adapt themselves to all soils and latitudes, hence the importance of planting those which experienced fruit growers have tested and found profitable. A Strawberry having all the good qualities, has not, and perhaps never will be discovered; still in choosing, it is well to purchase plants having as many good points as possible. This I claim for the Michel's Early.

It is claimed to be the earliest in cultivation. It makes perfect flowers and fruit. Very prolific. Price, 60c. per 100; $5 per 1000.

I consider this variety superior to the Sucker State, being earlier and more prolific. It has become the leading market sort, home and for shipping North. Have dropped the Sucker State from my list as the Michel's Early is superior and earlier.



Michel's Early Strawberry.

LOUISIANA SOFT SHELL PECANS.

This is a variety of nuts which only grow South, and is a sure crop here. Those who planted Orange trees twenty years ago, lost most of their labor in January 1886, when seven-eighths of trees were killed by the severity of the weather. If Pecan trees had been planted instead, they would have brought a handsome income and continued to increase every year in their production, furnishing a never failing crop for a whole century.

Have no Centennial nor Frotscher's Egg-Shell pecans to offer this season; as the crop from these trees were totally destroyed by the late storm. The heavy wind had blown and twisted the nuts from the trees before they were fully matured, and therefore they are unfit for planting. I have a limited supply of Louisiana Soft Shell Pecans; these are of a fair size and are as large as any to be found this season. Can only furnish five pounds to one purchaser.

Price, 50c. per pound.

The pecan crop in general has been almost a complete failure; especially the fancy varieties.

The following letter on *Pecan Culture* is written by Mr. Wm. Nelson, and may be of importance to those contemplating the raising of this fruit.

Mr. Richard Frotscher, New Orleans.

Dear Sir:—There being as you say "an evident desire among many here to learn something more about pecan growing, with a view of planting," I send you my views on the subject. While not professing to be a teacher, I think, if you conclude to publish this in your "Garden Manual," it may be of interest to some who are about starting in the business; being only a plain statement of facts, without much speculation as to how profitable it may prove to those engaged in it.

It is surprising that this matter should have received so little attention up to this time, the demand for good nuts being practically unlimited.

The trees as far as my observation goes, are subject to no disease, and have but few insect pests to contend with. They will grow in almost any soil, on high or low land, no

cultivation, no draining, no pruning required. The reverse of all this is true of the orange; yet, how many have spent much money in trying to establish orange groves, and so few to plant pecan trees. The returns from the first so uncertain, from the last absolutely sure. An orange grove in this State may be, and often is killed out in one night by cold, while a pecan grove will continue to be profitable for years; for so long, in fact, that it is not even remembered who planted it.

The pecan nut tree "Carya Olivea Formis," grows wild in many of the Southern States, and is said "to be indigenous along the Mississippi river as far North as Southern Iowa."

The bulk of the nuts on the market are from wild self-sown trees. Prices vary from 5 to 50c. per pound, showing conclusively there is a great difference in quality. The rich, sweet, oily nuts of thin shell and large size are the best. I have some now before me, some small ones. $\frac{7}{8}$ of an inch long by $\frac{3}{8}$ of an inch in diameter, and others $1\frac{1}{8}$ inch diameter by $2\frac{1}{8}$ inches long. These last are of ten times the value of the first, because of superior quality, thin shell and large size. These nuts are all from self sown trees. The yield from full grown trees varies from one to seven barrels, weighing about one hundred pounds per barrel.

In no other class of wild fruit or nut trees is there a greater chance for improvement, or rather so great an improvement so easily effected. We have only to select the best sorts nature has provided, and bud or graft them on the common kinds.

The most successful method is by "annular budding." It may be done any time from the end of May up to the first part of August, varying as seasons and localities differ, the earlier it can be done the better.

With a sharp budding knife make two cuts completely around the stock, about one inch apart, cut only through the bark, cut from the top circle to the lower one a straight cut down, now slip off from the stock this piece of bark which is to be used as a pattern, that is, place it around the scion (or piece of branch on which are the buds you wish to use), covering a well-developed eye; make the same cut as before, on the scion, throw the first piece of bark away, fit the last piece from the scion to its place on the stock, wrap firmly (leaving the eye uncovered) with wax cotton, bass, or like soft material. To have the buds fit well, the scion should be as large or larger than the stock. If the operation is well done, the buds will start in about fifteen days. When the buds have taken well, take off the ties and cut back the stock to within six inches of the bud. When they have grown out a foot or more, cut back again to within a half inch of the bud. Thereafter allow nothing but the bud to grow. Pecan trees may be grafted in the ordinary way, but I have never succeeded in budding them by the common method.

Budding or grafting will cause the trees to come into bearing much earlier than from seed, to produce more regular and more abundant crops, besides perpetuating the improved kinds, which is the more important, as they do not always come true from seed.

Pecan seed should be transplanted soon after the leaves fall; it must be done before they start growing in the spring. As they grow to be large trees, they must be planted from fifty to seventy feet apart. Though on sandy poor land they may be planted closer. Keep down the weeds from around the young trees for the first year or two; afterwards they will take care of themselves.

In looking over my letter in your "Garden Manual," it struck me that I would like to say a few words more to those desirous of planting a grove of seedlings, if you think it worth while to make room for it. I wish to impress them with the importance of planting only the very best and finest nuts obtainable. To bear in mind the fact that the tendency of such seedling is not toward an improvement on, but towards a kind inferior to the parent tree. That some only even of the best selected nuts reproduce their kind. (It is said about sixty per cent. of the seedlings from good nuts produce good fruit.) That there is no way to select the best of such seedlings but by waiting until they fruit, which may be eight to fifteen years.

Now, as there are many advertisements of "Large Soft-shelled Pecans" for sale for seed, I would advise all buyers to be very particular as to the source from whence they get their nuts for planting, otherwise they will certeinly be disappointed in results, and incur an irreparable loss of years of time.

The tendency of this tree to sport or produce varieties is amply proven by the numberless kinds we now have. I have never seen two trees in a grove produce nuts exactly alike in size, shape and quality. Where it is possible to get nuts from a tree growing at some distance from others (the further the better) such nuts would certainly be the best to plant. The chances that they would reproduce this kind are greater, because the polen from other trees would not be so likely to reach it at the time of flowering. In this connection, and while I think of it, I certainly advise any one against buying seedling trees, unless from a responsible and reliable nurseryman. There are thousands of such trees being offered for sale, professedly grown from good pecans, but I know of barrels of almost worthless pecans to have been sown, ostensibly to make stocks for budding, but doubtless many thousands of these will be sold to supply the demand for cheap trees. Far better to plant a nut of good quality which you can see before it goes into the ground, and wait one year longer, than to plant such trees, even if they cost nothing.

It is best to raise the trees in nursery before planting in orchard. Plant the nuts in rows three or four feet apart, drop the nuts in the row, sow four inches from each other, cover two inches deep, and keep the ground clear of grass and weeds. The seed may be planted

any time after the nuts ripen until growth starts in the spring. When two years old the seedlings may be easily and safely transplanted to the orchard.

In my opinion the transplanting of the trees while young is advantageous, inasmuch as it causes them to make a more spreading head, and to come earlier into bearing.

In adopting for propagation the three kinds which, on our joint investigation, we concluded to be the best, I have named them the "Frotscher," "Rome" and "Centennial." As you know, they are phenomenal in size, thin shell, of rich, sweet quality and finest flavor.

That you have made a long step toward improvement by selecting only such nuts as these for seed, can not be disputed; but as they do not always come true from seed, perpetuating the good kinds can best be done by budding or grafting. This you know better than myself.

The good interest you take in introducing important kinds of seeds, trees, etc., the trouble and expense you have been at in this case, searching for the very best pecans, deserves a greater reward than the mere money profit it may bring you, and will, I know, easily excuse the length of this communication.

Yours very respectfully,

WM. NELSON.

Grafted trees of the above three varieties can be had from me at $2.00 each. No difference in price by the quantity.

As our Orange trees in Louisiana, when either on their own roots or grafted upon the sour stock, frequently during cold winters get killed down or suffer to such an extent that it takes several years for them to recover from the effects, it is essential for us to use for grafting or budding upon a stock which is sufficiently hardy enough to stand our most severe winters. Such a stock we find in the wild native Orange of Japan, the Citrus trifoliata.

With kind permission of Dr. G. Devron, of this city, I copy the following article published by him in the *Southern Horticultural Journal:*

CITRUS TRIFOLIATA.

The "Citrus trifoliata" first described by Dr. E. Kœmpfer, in 1712, is the wild native Orange of Japan, and is the hardiest of the citrus family; it has stood the winters for several years, uninjured, of Washington City, D. C., without any protection, and also those of New York City, by being merely sheltered from the north wind.

This pretty little tree has long been used in Japan as a stock to bud or graft upon other and more tender varieties of the orange family; it is also used there extensively to construct impenetrable hedges.

About the year 1831, Desfontaines, a French botanist, introduced that citrus, which he named "Citrus triptera," in France, and having found it perfectly hardy anywhere south of the city of Paris, he advised its propagation and use for hedges in Southern France. For the last few years this new citrus has been found in the catalogues of our nurserymen, but has not been tried as much as it should have been The Citrus trifoliata, when better known and oftener used as a hardy stock for the more valuable and more tender varieties of the orange, will extend the now limited belt of successful and profitable orange culture.

Having been one of the first to cultivate the Citrus trifoliata in the open ground in the United States, and perhaps the first to see it bloom and produce fruit in this country, I must say that I know of no variety of the citrus family that can be more neglected, more exposed to extremes of temperature, or to excesses of moisture and dryness, with so much impunity. In seventeen years that I have had that citrus under observation, I never found an injurious insect on the tree, or its leaves, flowers or fruit.

The Citrus trifoliata used as a stock offers another advantage; the portions above the bud when removed are not lost; when treated as cuttings they readily strike roots and furnish new stock for the following year.

The Citrus trifoliata, "Karataz-Banna," or "Gees," its Japanese name, was called by Kœmpfer, when he first saw it, in 1698, "Aurantia trifolia sylvestris, fruetu tetrico;" the fruit has an unpalatable pulp, but the rind or skin of the same is used as a component of a celebrated and popular remedy known in Japan as the Kikoku. The tree in Louisiana grows to the height of 10 to 12 feet, with numerous straight stout and very sharp thorns (a good substitute for our barbed wire), the leaves are trifoliate, the flowers are very large and have no odor, or if any, a very faint one, and its flowers appear a week or two before the new leaves, about the 17th to the 19th of March, say on St. Patrick's day. This peculiar date and the trifoliate form of its leaves entitles that tree to the popular name of the "Shamrock Orange" which I have given it.

I have been told that this tree is an evergreen in Japan, but in my garden in this city it is always a deciduous tree, except seedlings of less than two years, which retain their leaves the first winter. The impalatable but very pretty fruit is of the size of a mandarin orange, and contains some thirty seeds, which, on being immediately planted, reproduce the original plant, thus proving this tree to be a wild plant and neither a hybrid nor a sport from some other citrus. When the first blossoms of March do not produce much fruit, a second and third bloom occur in May or June, and yet all the fruits mature at the end of October. In November the leaves turn yellow and drop gradually, so that at the end of December none remain.

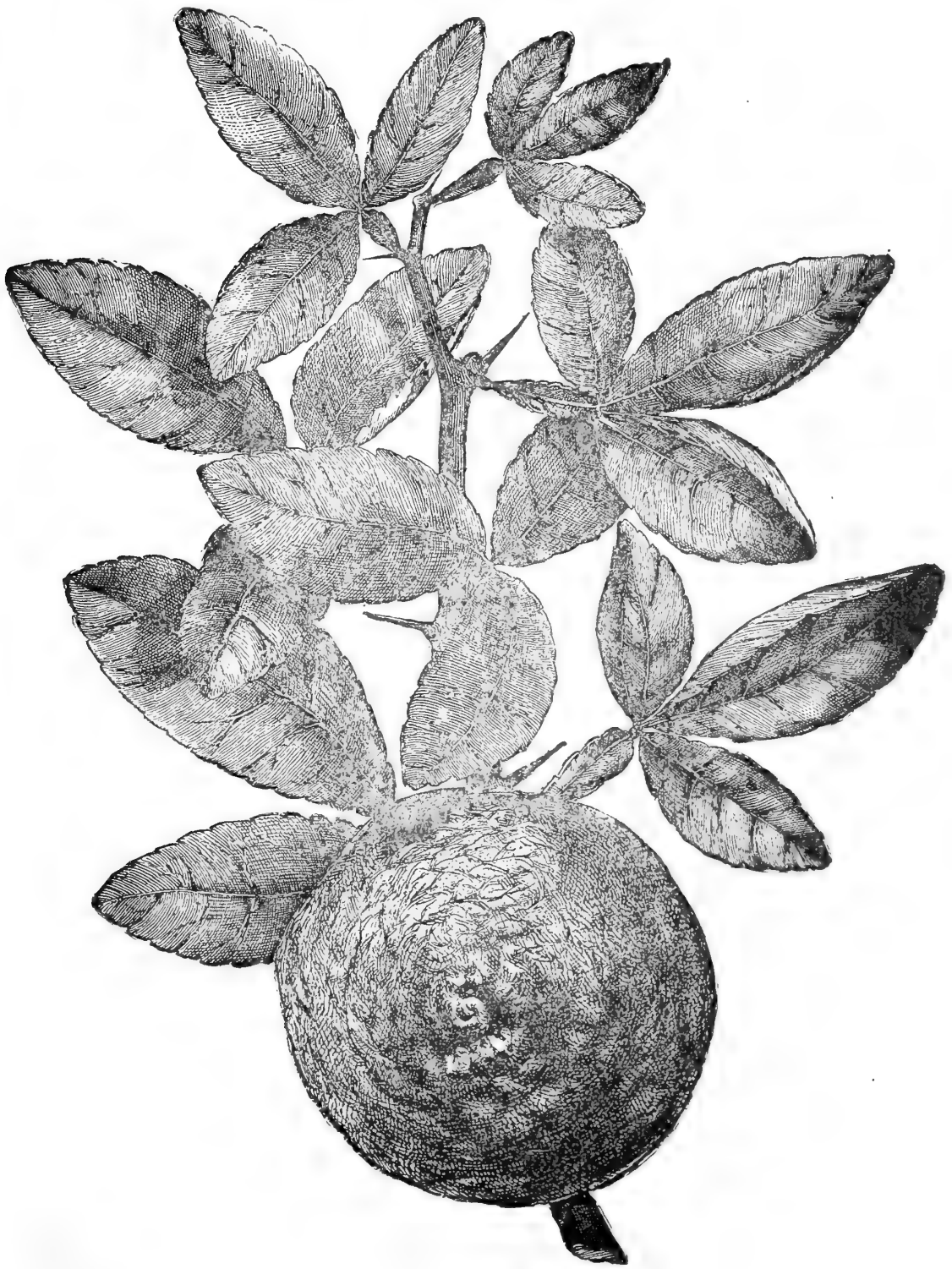
The deciduousness of the citrus increases its hardness; being dormant in winter and the circulation of sap very limited, rupture of the cells and death to the plant by a freezing temperature is nearly impossible in any of our Southern States.

While any variety of the orange family will grow well on the Citrus trifoliata, I would advise the use of the Satsuma and other hardy varieties lately introduced from Japan for the colder portion of this new untried orange belt.

The only objection that can be raised to the use of the Citrus trifoliata stock is, that it will produce smaller or dwarf trees. I do not consider this an objection but a quality; more trees can be planted in the same space, the fruit easier gathered, while the trees can be better managed and will be less exposed to damage from storms, high winds or tornadoes.

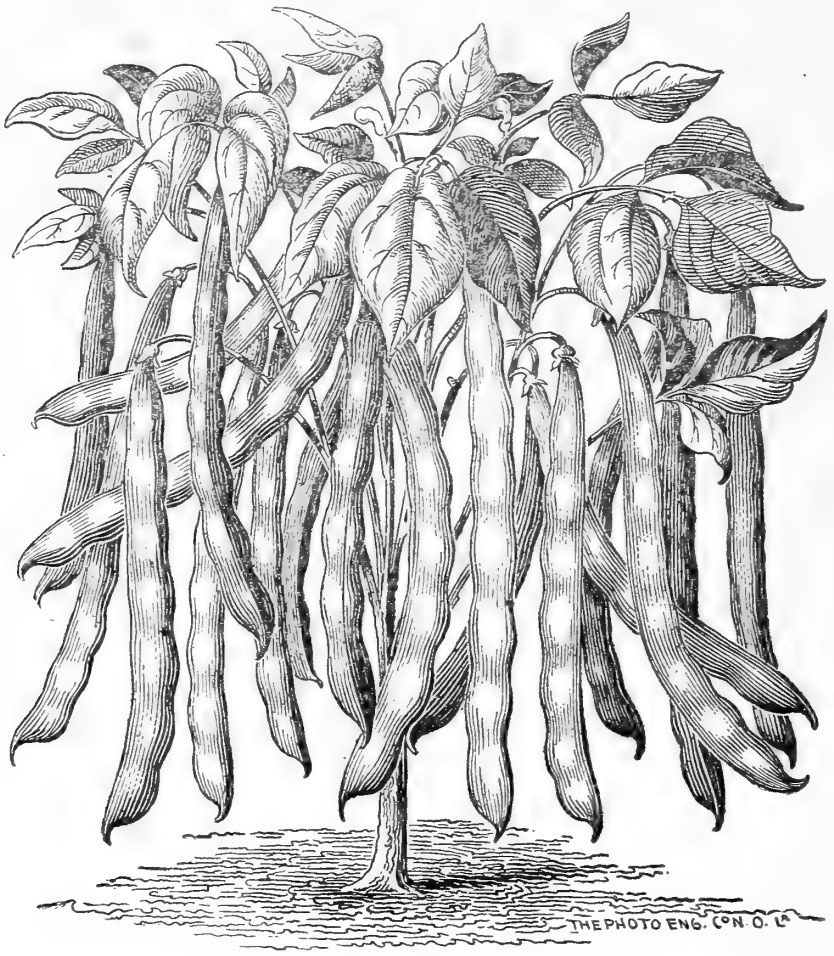
G. DEVRON, M. D.

I have but a limited supply of the above seed which I am offering at $2.00 per lb.; 65c. per ¼ lb. Have also a limited stock of two-year old trees. Price, $4.00 per 100; $30.00 per 1000.



Citrus Trifoliata.

SPECIALTIES and NOVELTIES for 1894.



Thorburn's Extra Early Market Bean.

Thorburn's Extra Early Market Bean. This Bean was introduced here from Germany two years ago. The introducer claims for it to be an exceedingly vigorous and healthy grower and enormously productive; the pods being borne in clusters and as many as 35 or 40 beans on each plant. In earliness of ripening it is a few days ahead of the MOHAWK and fully a week earlier than "BEST OF ALL". It is rust-proof, the seeds are black, the pods are of a light green color, long and *perfectly round*, solid-fleshed and of very soft marrow. For EARLINESS, PRODUCTIVENESS, SOLIDITY OF FLESH AND ROUNDNESS OF POD, it excels any bean now in cultivation.

I think this variety will become the leading bush bean for the New Orleans Market gardeners for shipping as well as for family use. Give it a trial. Have only a limited supply, only in packages of 10c. each.

Thorburn's Dwarf Lima Beans. The originators claim this bean to be a dwarf form of the Challenger Lima Pole Beans. It is a veritable *dwarf* Lima, growing only from 12 to 18 inches high, perfectly fixed in habit and with hardly any inclination to run to vine. It is more easily cultivated and takes up less room than the running sort. It is also earlier in bearing than the pole varieties. It possesses in full the delicious flavor characteristic of the Challenger Lima; a merit which in a Dwarf Lima is exclusively its own. In this respect it differs from all other Bush Limas.

It is exceedingly productive; the pods are short and unusually thick and display the seeds inside by prominent knobs. They contain from two to four beans. One plant is sufficient in a hill.

Price per packet, 10c.; per pint, 50c.; per quart, $1.00. Postage extra, 15c. per quart.

White Rockdale Corn. *(New.)* This new Southern variety of field corn originated in Georgia, and was first brought out here by me last year. I only had a limited quantity which I distributed among several of my customers for trial. It has turned out to be all what is claimed for it by the originator. It is medium early, produces large, heavy and well filled ears; which are well covered by the shuck, thus protecting the grain from birds and the weather. Small cob, deeply dented grains; it is flintier than the *Mosby's prolific*, of a pure white color and makes excellent meal. Has given general satisfaction wherever tried; even in poor piney-wood land. It has given the best yield and results at the Louisiana Experiment Station, where it was tried alongside of other kinds, under the name of

Snowflake, which the originator first adopted, but finding another variety of corn called the same and to avoid confusion, he surnamed it after his farm "*Rockdale.*" Recommend same very highly. Do not fail to give it a trial.

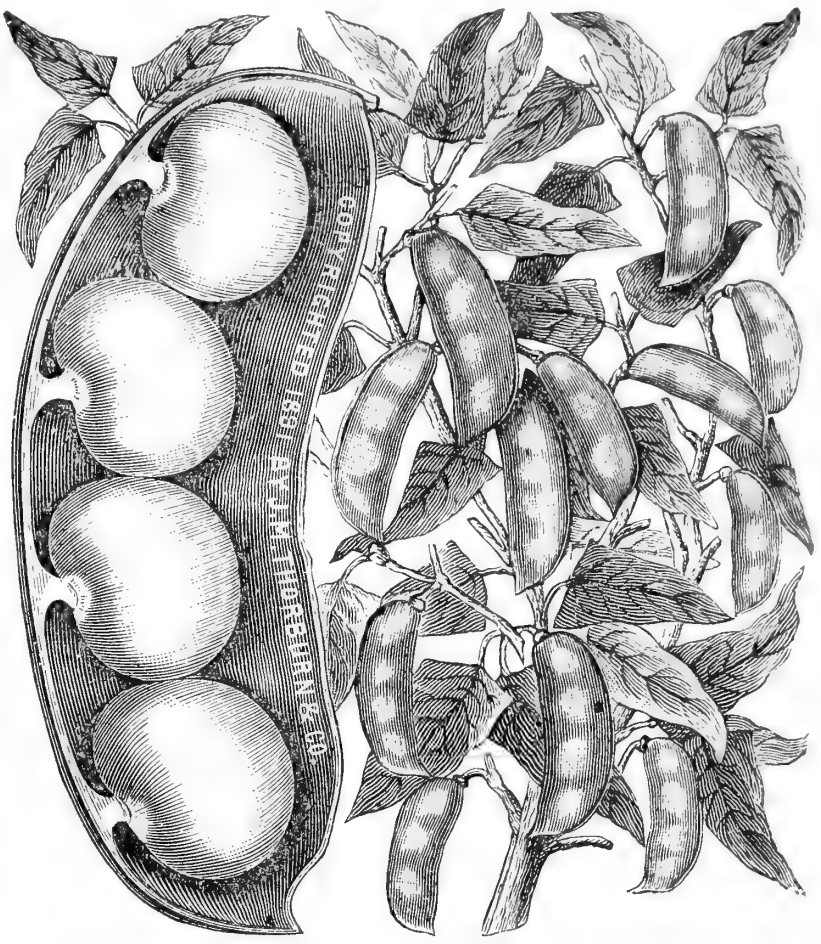
Price, 15c. per quart; 75c. per peck; $2.50 per bushel.

The following testimonials are from parties who have tried the Rockdale Corn last season:

MISSISSIPPI, August 30, 1893.

Last Spring you gave me for trial a sample of field corn called the Georgia Snowflake *(Rockdale)*. I planted it alongside of other varieties and should say that it did remarkably well. The ears are throughout well filled and heavy, weighing from 12 to 15 oz. each and measuring from 8 to 10 inches in length. It was grown on sandy piney-woods soil, fertilized with stable-manure. I believe it worthy of a trial and will continue to plant it hereafter.

B. TUMA.



Thorburn's Dwarf Lima Beans.

LOUISIANA, October 29, 1893.

The sample of Snowflake Corn *(Rockdale)* you sent me last Spring turned out splendidly. I found it very prolific, makes a heavy stalk, does not grow too tall and the ears are of good size, well filled and covered by the shuck. I think it to be a fine corn for our climate.

OSWALD SACHSE.

LOUISIANA, September 12, 1893.

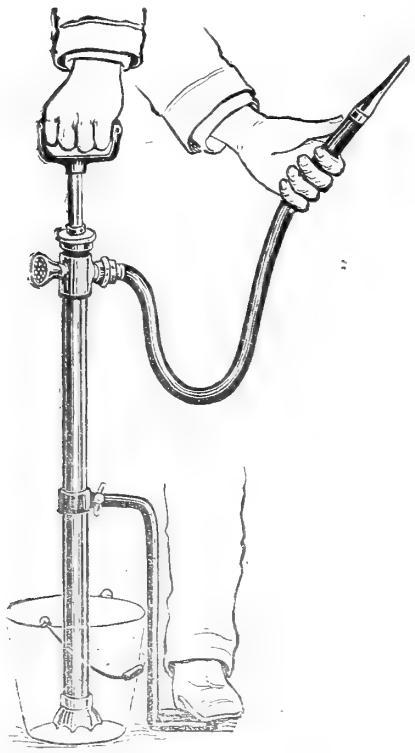
During the month of May I received a small package of White Corn from you, which was called Snowflake *(Rockdale)*. I gave it a fair trial alongside of other kinds and was well pleased with the result; it is quite early, prolific, bearing from two to three ears to a stalk, all large, well filled and covered tightly by the shuck. On rich soil it grows tall, some stalks measuring from 10 to 12 feet. I consider it the best White Corn I ever planted in this section.

HENRY SCHLOESSER.

Paragon Pea. (Introduced by W. H. Grenell). This is an excellent white wrinkled Pea, medium early, long straight pods containing six to nine peas. Stubbed stocky vine with luxuriant foliage, pods light green; quality superb, not excelled by any other kind and the largest producer known.

I can substantiate the above statement of the introducer. I tried this pea the past season and found that it stood more heat, without being affected by mildew than any other kind. Those who like a first class fine flavored pea should not fail to give it a trial.

Price per packet, 10c.; pint, 25c.; quart, 40c.; peck, $2.50; per bushel, $8.00. If ordered by mail, 15c. per quart postage must be added.



The Acme Pump.

THE ACME HAND FORCE PUMP.

In the introduction of the new Acme Pump, the manufacturers have endeavored to present a cheap, durable and powerful Force Pump. With the exception of the Iron Base and two foot rubber hose it is made entirely of Brass and is very substantial.

Wherever vermin and Insect Pests can be reached with the various solutions, the Acme will be found invaluable as an exterminator. For use in the Orchard, Green-house and Garden, it answers all requirements.

The Acme is useful for Washing Carriages and handy in case of fire. The discharge end of the nozzle is so shaped that it can be used for Veterinary purposes.

Price, $4.00.

EUREKA EXTERMINATOR OR TORCH.

This is a very simple, durable, cheap and effective contrivance for destroying Caterpillars and all other insects which destroy the trees and other shrubs, also the foliage and the fruit. It is very easy to handle and should be used according to the following directions:

Place the Exterminator in a receptacle three inches in diameter and five inches high. Pour in enough Kerosene Oil to cover the body of the Exterminator; let it soak for 10 or 20 minutes, then take it out and place it on a pole from 10 to 20 feet long. When you have this done you are ready to light it. The best time to destroy the Caterpillar is in the morning before the dew is off the trees and just at twilight. The best way to put out the flame is to smother. There is nothing about this that can melt or burn up, consequently it is almost indestructible. Price, 50c. each.

ORANGE TREES.

I have a limited quantity of Mandarin and Satsuma Orange Trees to offer; they are budded on Trifoliata stock, which makes them the hardiest Oranges that can be planted.

2 to 2½ feet high, bushy, 75c. each; 3 feet and upward, $1.00 each (healthy, thrifty trees).

Can also furnish Sweet Creole Brazil and Java budded on same stock, same price. For North of New Orleans the "Satsuma" are the best adapted to be planted, as this variety can be grown one degree North above the Orange Belt.

EXTRA CLEANED BIRD SEED.

I make a specialty to put up choice re-cleaned bird seed in cartoons holding one pound. These cartoons contain a mixture of

SICILY CANARY, HEMP, GERMAN RAPE, AND GERMAN MILLET,

all re-cleaned and of best quality.

Have also plain Canary put up in same way, one pound cartoons; this is of the very best quality and also re-cleaned. Price, 10c. per cartoon; 3 cartoons, 25c.

Have also in bulk, the above as well as Hemp, Rape and Millet.

Cuttle Fish Bone, 5c. a piece; 50c. a pound.

Prepared Mocking Bird Food in small and large sized bottles, Small bottle, 20c.; large bottle, 35c.

Bird Gravel. Small sized box, 5c.; large sized box, 10c.

Vegetables of special merit generally used by the Market Gardeners and Truck Farmers from this vicinity.

They must surely be the best for the Southern States as they have been thoroughly tried by these people.

Best of All Beans. *(Bush.)* This is the Market Gardeners favorite Bean for shipping, and I do not exaggerate when I state that two-thirds of the Beans shipped from here in the Spring are from that variety. It is a little later than the Mohawk, but is round in shape, much fleshier and is therefore far superior to any other Bush Bean. It is very productive and makes a good size pod. Recommend it very highly.

Early Mohawk Six Weeks Beans. This is the earliest Bush Bean used by the Market Gardeners for first planting in Spring. It is the hardiest and most prolific variety and comes in the market before any other kind. The pods are flat and long. They generally command high prices in the beginning, but after the Best of All comes in it loses its value, as the latter variety is given the preference, owing to its shape and good keeping quality.

Wardwell's Dwarf Kidney Wax Beans. This is the best Bush Wax Bean in cultivation. It is early, the pods are longer but of same shape as Dwarf Golden Wax; very prolific and hardy. It is not so apt to rust as the other varieties of Wax Beans. Planted almost exclusively for the market by the New Orleans Market Gardeners.

Southern Willow-Leaf Sewee or Butter Beans. This is the most prolific and hardiest growing Butter Bean in the South; it stands our Summer heat and drought better than any other variety. It is quite a distinct kind from any other, as can be seen by the leaves which are trifoliate and shaped like the Willow, therefore its name. It is almost exclusively planted here by the New Orleans Market Gardeners who give it the preference of any other Butter Bean, as it is the most profitable for our section. It was introduced by me some years ago and has been brought out here of late by Northern Seedsmen as something new.

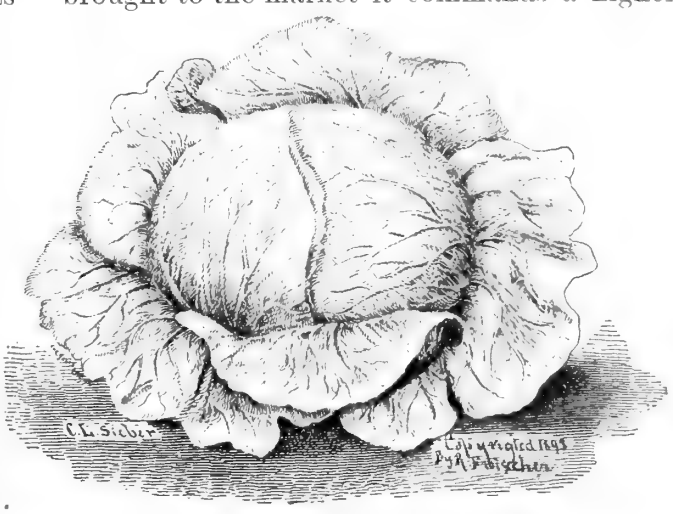
White Crease Back Pole Beans. My own introduction. This is one of the best and leading Pole Beans in cultivation. It is the only Pole variety used in the Spring for shipping, earlier and more prolific than the Southern Prolific, round podded with a deep crease in the back, hence its name. During the shipping season they are stenciled Mobile Beans; this name is wrongly applied. It is one of the best shipping Beans ever introduced and carries better than any other variety for long distances. When in season it cannot be surpassed. During the Summer the "Southern Prolific" is the best, as it stands the heat better.

Golden Wax Flageolet Pole Beans. Although only introduced a few years ago it has become one of the standard market varieties. It is one of the best Wax Pole Beans in cultivation, as far as flavor and size of pods are concerned. It bears abundantly and entirely stringless; hardly ever spots by rain or any untoward weather as other Beans do. It is a favorite with the New Orleans Market Gardeners.

Crescent City Large Late Flat Dutch Cabbage. A few years ago I introduced this Cabbage here under the title of No. 1, distributing the Seeds in small quantities for trial among the principal Cabbage Growers and Market Gardeners in this vicinity. It proved to be one of the finest and most uniform heading Cabbages that I ever saw grown in this section. Heads are solid and large; it is two weeks earlier than my Superior Large Late Flat Dutch Cabbage.

Stein's Early Flat Dutch Cabbage. This is one of the earliest Cabbages for its size. Although only introduced here by me a few years ago it has become one of the leading varieties for a winter crop. It is used to a large extent by the Market Gardeners and is considered one of the earliest and best heading Cabbages for this market. I have never had a variety of Cabbage that has become so popular in such a short time among the Market Gardeners as this sort. Recommend it very highly.

New Orleans Market Cucumber. This is one of the best shipping Cucumbers ever introduced and cannot be surpassed by any other variety. It is almost the only kind planted here for forcing and shipping. When brought to the market it commands a higher



Stein's Early Flat Dutch Cabbage.

price than all other kinds, owing to its fine shape and dark green color. Has been introduced by me.

New Orleans Improved Passion Lettuce. This is one of the hardiest varieties of Lettuce in cultivation for winter. Heads firm and solid. It is planted more for shipping than any other kind, for which purpose it cannot be excelled.

New Orleans Market Egg Plant. This is one of the best and finest shaped Egg Plants for the market. It should be justly called the *Market Gardener's Favorite*, as it is almost the only kind planted for shipping purposes in this vicinity, as well as Florida, as it carries better in transportation than the other varieties, also keeps longer in bearing. It is oval in shape and of large size.

Tabasco Pepper. This variety of Pepper is grown for the market as well as for making sauce. It is pungent and strong, also very prolific. It is easily gathered as the fruit does not adhere to the stem and grows almost erect on the branches, as may be seen in the cut. This variety is used in manufacturing the well-known Tabasco Sauce. It is splendid for family use.

Tabasco Pepper.

SPANISH PEANUTS.

This is an early kind, very prolific, grows perfectly erect and does not spread on the ground like other varieties. They can be easily cultivated with the plow. In harvesting they are easily gathered, as all the peas hang close to the roots. They mature in about three or four months. The stems, when harvested, make a very good quality of hay. The fruit is smaller than the Virginia and other varieties; is very sweet and pods fill out well. Can be planted close in the row and drill, yields heavily per acre. A very good feed for fattening hogs.

Price, per lb, 20¢; by mail, postpaid, 30¢; per peck, 75¢.

Have also the *White Virginia* and *Red Tennessee Peanuts* in stock. They are larger in size than the Spanish kinds. They are of a spreading habit, and are cultivated in ridges like sweet potatoes.

Price of White Virginia is 10¢ per lb.

Price of Red Tennessee is 10¢ per lb; if by mail, 8¢ per lb extra must be added.

JERUSALEM ARTICHOKE.

This tuber is well known, and has been described by me in my former Manuals. It is used for the table, also for stock feed. It does better in a rich loam, should be planted and cultivated like potatoes. They yield very heavily.

Price, per bushel, $2.50; per gall., 35 cents.

COTTON SEED.

I have of the above a large assortment; of which the following is a list of the leading varieties.

Petit Gulf	$0.75	per bushel of	30	lbs.
Peterkin	1.50	" "	30	"
Bancrofts Herlong	1.50	" "	30	"
Allen, long staple	1.50	" "	30	"
Boyds' Prolific	2.00	" "	30	"
Peerless	2.00	" "	30	"
Peeler	2.00	" "	30	"
Sea Island	2.50	" "	40	"

ENGLISH SOFT-SHELL WALNUTS.

I have a limited supply of the above nuts in stock; crop of "93." This fruit is quite different in quality from the common varieties, as the kernel can be taken out with ease, owing to the peculiar softness of the shell which is easily broken and allows the former to be taken out whole. Price, 40c. per lb.

JAPANESE CHESTNUT TREES.

Have a small lot of *grafted* chestnut trees of the Japanese variety, which I think will be suitable for our climate. Japanese fruit having always done remarkably well in the South, I think the above kind is worthy of a trial. Price, 50c. each.

TESTIMONIALS.

ALABAMA, February 27th, 1893.

The Seeds which I got from you last year did very well. I have recommended your House to all my friends and neighbors.

HENRY STORK.

LOUISIANA, March 12th, 1893.

I find your "Manual" very useful and instructive.

MRS. W. A. BRADLEY.

GEORGIA, September 20th, 1892.

The fruit of the New Orleans Market Egg Plant is the finest I ever saw. I sent a crate of the fruit to some parties in Florida, it was admired very much and they said it was the finest Egg Plant they had ever seen in that State. I think the New Orleans Market the prettiest Egg Plant in cultivation.

PHILIP S. JONES.

LOUISIANA, March 7th, 1893.

Your "Garden Manual" is indispensable in the Southern States and every farmer and amateur gardener should have one.

E. L. WOODSIDE.

LOUISIANA, February 22nd, 1893.

Our town and country stores are well supplied with Seeds from standard dealers, but when I want Seeds that will prove first class and reliable I always order them from you, as they never fail to give perfect satisfaction.

T. J. FORD.

MISSISSIPPI, May 29th, 1893.

Your Seeds are more highly spoken of by my customers than any other I have ever handled.

W. A. BROWN.

LOUISIANA, March 12th, 1893.

I know the superiority of your Garden Seeds and shall do all in my power to introduce them extensively among our people.

S. S. LYNN.

LOUISIANA, March 14th, 1893.

I am much pleased with your Seeds. Although I have dealt with other Houses for the past thirty years I have given your Seeds the preference lately.

MRS. M. F. ROBERTSON.

MISSISSIPPI, May 2nd, 1893.

Last season was very unfavorable for Water Melons in this locality, still I raised some of the Lone Star variety weighing from 25 to 30 pounds. For quality, they surpassed anything I ever ate in the Melon line. They are delicious.

A. E. WALL, M. D.

PLANTER'S & GARDENER'S PRICE-LIST.

COST OF MAILING SEED.

Orders for ounces and ten cent papers are mailed free of postage, except ***Beans***, ***Peas*** and ***Corn*** See page 4 in regard to seeds by mail. On orders by the pound and quart an advance of eight cents per pound and ***fifteen cents per quart must be added to quotations for postage.***

SPECIAL DISCOUNT.

On all orders, amounting to $ 5.00 and over, 10% discount.
" " " 10.00 " 12 "
" " " 20.00 " 15 "

For larger quantities, special prices will be given on application.

The above discount is on all seeds except ***Potatoes, Onion Sets, Shallots, Grass*** and ***Field Seeds, Fruit Trees*** and ***Plants*** which are net cash.

VARIETIES.	PRICES.		
ARTICHOKE.	Per ounce.	Per ¼ lb.	Per lb.
Large Green Globe (Loan)	$0 50	$1 75	$6 00
ASPARAGUS.			
Conover's Colossal	10	20	50
	Per 100	Per 1000	
" " Roots 2 years old	$0 75	$6 00	
BEANS—Dwarf, Snap or Bush.	Per quart.	Per peck.	Per bushel
Extra Early Refugee	$0 25	$1 75	$6 00
Pride of Newton	25	1 75	6 00
Early Mohawk Six Weeks	20	1 50	5 00
Early Yellow Six Weeks	20	1 50	5 00
Improved Dwarf German Wax, (stringless)	25	1 75	6 50
Grenell's Improved Dwarf Golden Wax	25	1 75	7 00
Wardwell's Dwarf Kidney Wax	25	2 00	8 00
Dwarf Flageolet or Perfection Wax	25	1 75	7 00
Dwarf Butter Wax. (Bismarck)	25	1 75	7 00
White Kidney	15	1 00	4 00
Early China Red Eye	20	1 25	4 50
Red Kidney	15	1 00	4 00
Best of All	25	1 75	7 00
Improved Valentine	20	1 50	5 00
Henderson's Bush Lima	50	3 00	10 00
Burpee's Bush Lima	75	5 00	20 00
BEANS—Pole or Running.			
Large Lima	40	2 50	9 00
Carolina or Sewee	40	2 50	9 00
Southern Willow-Leaved Sewee or Butter.	50	3 00	10 00
Dutch Case Knife	30	2 00	7 00
German Wax (stringless)	35	2 25	8 00
Southern Prolific	35	2 00	7 00
Crease Back	40	3 00	9 00
Lazy Wife's	40	3 00	10 00
Golden Wax Flageolet	40	2 50	9 00
Early Golden Cluster Wax	40	2 50	9 00
BEANS—English.			
Broad Windsor	20	1 50	5 00
BEET.			
Extra Early or Bassano	10	20	60
Simon's Early Red Turnip	10	20	60
Early Blood Turnip	10	20	60
Long Blood	10	15	50
Half Long Blood	10	20	50

By mail, add 15c. per quart for postage.

VARIETIES.	PRICES.		
BEET.—CONTINUED.	Per ounce.	Per ¼ lb.	Per lb.
Egyptian Red Turnip	$0 10	$0 20	$0 60
Eclipse	10	20	60
Lentz	10	20	60
Long Red Mangel Wurzel	10	15	40
White French or Sugar	10	15	40
Silver or Swiss Chard	10	25	75
BORECOLE or KALE.			
Dwarf German Greens	15	40	1 00
BROCCOLI. Purple Cape	30	1 00	4 00
BRUSSELS SPROUTS	20	60	2 00
CABBAGE.			
Early York	25	75	2 50
Early Large York	25	75	2 50
Early Large Oxheart	25	75	2 50
Early Winningstadt	25	75	2 50
Jersey Wakefield	30	1 00	3 00
Early Flat Dutch	25	75	2 50
Early Drumhead	25	75	2 50
Large Flat Brunswick	25	1 00	3 00
Improved Large Late Drumhead	25	75	2 50
Superior Large Late Flat Dutch	25	75	2 50
Crescent City Large Late Flat Dutch	25	75	2 50
Improved Early Summer	25	75	2 50
Red Dutch (for pickling)	25	1 00	3 00
Green Globe Savoy	25	60	2 00
Early Dwarf Savoy	25	60	2 00
Drumhead Savoy	25	75	2 50
St. Denis or Chou Bonneuil	25	75	3 00
Stein's Early Large Flat Dutch (very fine)	30	1 00	3 00
CAULIFLOWER.			
Extra Early Paris	75	2 50	10 00
Half Early Paris	75	2 50	10 00
Early Erfurt	75	2 50	10 00
LeNormand Short Stemmed	75	2 50	10 00
Early Italian Giant	1 00	3 00	12 00
Late Italian Giant	1 00	3 00	12 00
Algiers (fine)	1 00	3 00	12 00
Early Snowball	2 00	6 00	20 00
Early Italian	1 00	3 00	12 00
CARROTS.			
Early Scarlet Horn	10	35	1 00
Half Long Scarlet French	10	30	1 00
Half Long Luc	10	30	1 00
Improved Long Orange	10	25	80
Long Red, without core	10	30	1 00
St. Valerie	10	30	1 00
Danver's Intermediate	10	25	80
Chantenay Half Long	10	30	1 00
CELERY.			
Large White Solid (finest American)	25	75	2 50
Perfection Heartwell, (very fine)	30	1 00	4 00
Dwarf Large Ribbed	25	75	2 50
Golden Self-Blanching	30	1 00	4 00
Turnip-Rooted	30	1 00	3 00
Cutting or Soup	15	50	1 50
CHERVIL.			
Plain leaved	15	50	1 50
COLLARDS	15	40	1 00
CORN SALAD	15	40	1 00

VARIETIES.		PRICES.		
CORN.		Per quart.	Per peck.	Per bushel
Extra Early Dwarf Sugar	By mail, add 15c. per quart for postage.	$0 25	$1 25	$4 00
Adam's Extra Early		20	1 00	3 00
Early Sugar or Sweet		20	1 25	4 00
Stowell's Evergreen Sugar		20	1 25	4 00
Golden Beauty		20	75	2 50
Champion White Pearl		15	75	2 50
Golden Dent Gourd Seed		15	75	2 50
Early Yellow Canada		15	75	2 50
Large White Flint		15	75	2 50
Blunt's Prolific, Field		15	75	2 50
Improved Leaming		15	75	2 50
Mosby's Prolific		15	75	2 50
Hickory King, (White)		20	75	2 50
White Rockdale (new)		15	75	2 50
N. B.—Prices for larger quantities given on application.				
CRESS.		Per ounce	Per ¼ lb.	Per lb.
Curled or Pepper Grass		$0 10	$0 35	$1 00
Broad-leaved (grey seeded)		15	60	2 00
Water Cress (True)		50	1 75	6 00
CUCUMBER.				
Improved Early White Spine		10	25	80
New Orleans Market		15	40	1 25
Early Frame		10	25	80
Long Green Turkey		10	30	1 00
Early Cluster		10	25	80
Gherkin, or Burr (for pickling)		20	75	2 00
EGGPLANT.				
Large Purple, or New Orleans Market		40	1 50	5 00
Early Dwarf Oval		30	1 25	4 00
New York Market		40	1 50	5 00
ENDIVE.				
Green Curled		20	65	2 00
Extra Fine Curled		20	65	2 00
Broad-leaved, or Escarolle		20	65	2 00
KOHLRABI.				
Early White Vienna, (Finest)		30	1 00	4 00
LEEK.				
Large London Flag, American grown		20	65	2 00
Large Carentan " "		25	75	2 50
LETTUCE.				
Early Cabbage or White Butter		20	60	2 00
Improved Royal Cabbage		20	60	2 00
Brown Dutch		20	60	2 00
Drumhead Cabbage		15	50	1 50
White Paris Coss		20	75	2 50
Perpignan		20	75	2 50
N. O. Improved Large Passion (True)		20	75	2 50
Trocadero		20	60	2 00
MELON, MUSK or CANTELOUPE.				
Netted Nutmeg		10	30	1 00
Netted Citron		10	30	1 00
Pine Apple		10	30	1 00
Early White Japan		15	35	1 00
Persian or Cassaba		15	35	1 00
New Orleans Market (true)		15	40	1 25
Osage		15	40	1 00
Early Hackensack		10	30	1 00
MELON, WATER.				
Ice Cream (White Seeded)	Southern grown, Sup. Quality.	10	25	75
Dark Icing		10	25	75
Rattlesnake (true)		10	25	75
Pride of Georgia		10	25	75
Mammoth Iron-Clad		10	25	75
Kolb Gem		10	25	75
Florida's Favorite		10	25	75
Seminole		10	25	75
Lone Star		15	30	1 00

VARIETIES.	PRICES.		
MUSTARD.	Per ounce.	Per ¼ lb.	Per lb.
Large Curled	$0 10	$0 25	$0 75
Chinese Large Leaved	10	25	75
White or Yellow Seeded	05	15	40
NASTURTIUM.			
Tall	20	50	2 00
Dwarf	25	75	3 00
OKRA.			
Green Tall Growing	10	20	50
Extra Early Dwarf Green Prolific	10	20	50
White Velvet	10	20	50
ONION.			
Creole	25	1 00	Sold out.
ITALIAN ONION.			
New Queen	25	75	2 50
Bermuda (true) Red and White	25	75	2 50
ONION SETS.	Per quart.	Per peck.	Per bushel
White	20	Market Price.	
Red or Yellow	20	"	
SHALLOTS		"	
PARSLEY.	Per ounce.	Per ¼ lb.	Per lb.
Plain Leaved	10	25	75
Double Curled	10	30	1 00
Improved Garnishing	10	40	1 25
PARSNIP.			
Hollow Crown, or Sugar	10	25	75
PEAS.	Per quart.	Per peck.	Per bushel
Extra Early, (First and Best)	$0 25	$1 25	$5 00
Alaska	25	1 25	5 00
Tom Thumb	25	1 25	5 00
Early Washington	20	1 00	4 00
Laxton's Alpha	25	1 50	6 00
Bishop's Dwarf Long Pod	20	1 25	5 00
Champion of England	25	1 25	4 00
Carter's Stratagem	40	2 50	8 00
Carter's Telephone	40	2 00	7 00
McLean's Advancer	25	1 50	5 00
McLean's Little Gem	25	1 75	6 00
Laxton's Prolific Long Pod	25	1 25	5 00
Eugenie	25	1 25	6 00
Dwarf Blue Imperial	20	1 25	4 00
Royal Dwarf Marrow	20	1 00	3 50
Black-Eyed Marrowfat	15	1 00	3 50
Large White Marrowfat	20	1 00	3 50
Dwarf Sugar	30	2 00	8 00
Tall Sugar	30	2 00	8 00
American Wonder	30	2 00	7 00
Field or Cow Peas ..... Market Price.			

By Mail, add 15c. per quart for postage.

PEPPER.	Per ounce.	Per ¼ lb.	Per lb.
Bell or Bull Nose	30	1 00	3 00
Sweet Spanish Monstrous	40	1 25	4 00
Long Red Cayenne	30	1 00	3 00
Red Cherry	40	1 25	4 00
Golden Dawn Mango	30	1 00	3 00
Bird Eye	50	1 50	
Tabasco	50	1 50	
Chili	50	1 50	
Ruby King	30	1 00	3 50
Red Cluster	50	1 50	

VARIETIES.	PRICES.		
POTATOES.	Per bushel	Per barrel.	
Prices subject to fluctuation. Burbank Seedling	$1 50	$3 50	
New York Peerless	1 50	3 75	
Boston Peerless	1 75	4 00	
Rural New Yorker No. 2	1 75	4 00	
White Elephant	1 75	4 00	
Extra Early Vermont	1 75	4 00	
Vermont Early Rose	1 75	4 00	
Snowflake	1 75	4 00	
Early Sunrise	2 00	4 50	
Beauty of Hebron	1 75	4 00	
These are all Eastern grown, true to name, and of the finest stocks ever offered in this market.			
Early Rose, Tennessee grown	1 75	4 00	
Early Triumph, " "	2 00	4 50	
The Tennessee grown (second crop) Early Rose are considered the best seed of any. The Triumph are highly recommended for early shipping. (Drayage extra.)			
POTATOES, SWEET.			
Spanish Yam			
Shanghai, or California Yam			
Southern Queen			
Prices vary according to market. Quotations given on application.			
PUMPKIN.	Per quart.	Per peck.	Per bushel
Kentucky Field	$0 25	$1 50	$5 00
	Per ounce.	Per ¼ lb.	Per lb.
Large Cheese	$0 10	$0 20	$0 60
Cashaw Crook-Neck (green striped) southern grown	10	25	75
Golden Yellow Mammoth	10	40	1 00
RADISH.			
Early Long Scarlet	10	20	60
Early Scarlet Turnip	10	25	75
Yellow Summer Turnip or Golden Globe	10	30	1 00
Early Scarlet Olive-Shaped	10	25	75
White Summer Turnip	10	25	75
Scarlet Half Long French	10	25	75
Scarlet Olive-Shaped, or French Breakfast	10	25	75
Black Spanish (WINTER)	10	25	80
Chinese Rose (WINTER)	15	35	1 00
Chartier	15	35	1 00
White Strassburg	10	30	1 00
California Mammoth	15	35	1 25
ROQUETTE	20	75	2 00
SALSIFY, American	20	50	1 50
Sandwich Island (Mammoth)	25	75	2 00
SORREL, Broad-leaved	15	50	1 50
SPINACH.			
Extra Large-leaved Savoy	10	20	50
Broad-leaved Flanders	10	20	50
SQUASH.			
Early Bush, or Patty Pan	10	25	75
Long Green, or Summer Crook-Neck	10	25	1 00
London Vegetable Marrow	15	50	1 50
The Hubbard	15	50	1 25
Boston Marrow	15	50	1 50
TOMATO.			
King of the Earlies	25	1 00	3 00
Extra Early Dwarf Red	25	1 00	3 00
Trophy, (selected)	30	1 00	3 00
Large Yellow	30	1 00	3 00
Acme, (Livingston's)	25	75	2 50
Paragon	25	75	2 50
Livingston's Perfection	25	75	2 50

VARIETIES.	PRICES.		
TOMATO.—CONTINUED.	Per ounce.	Per ¼ lb.	Per lb.
Livingston's Favorite	$0 25	$ 75	$2 50
Livingston's Beauty	25	75	2 50
Horsford's Prelude	30	75	3 00
Dwarf Champion	30	75	3 00
TURNIP.			
Early Red or Purple Top (strap-leaved)	10	20	50
Early White Flat Dutch (strap-leaved)	10	20	50
Large White Globe	10	20	50
White Spring	10	20	50
Yellow Aberdeen	10	20	50
Golden Ball	10	20	50
Amber Globe	10	20	50
Improved Purple Top Ruta Baga, (Long Island Grown)	10	20	50
Munich Early Purple Top	10	20	60
Purple Top Globe	10	20	50
Extra Early White Egg	10	20	50
SWEET AND MEDICINAL HERBS.	Per pack.		
Anise	$0 10		
Balm	10		
Basil	10		
Bene	10		
Borage	10		
Caraway	10		
Dill	10		
Fennel	10		
Lavender	10		
Marjoram	10		
Pot Marigold	10		
Rosemary	10		
Rue	10		
Sage	10		
Summer Savory	10		
Thyme	10		
Wormwood	10		
GRASS AND FIELD SEEDS.	Per lb.	Per ½ bu.	Per bushel
Red Clover (Extra Cleaned)	$0 15		$7 50
White Dutch Clover	30		15 00
Alsike Clover	20		10 00
Alfalfa or French Lucerne	20		9 00
Crimson, (an annual)	15		8 00
Lespedeza Striata or Japan Clover	20	2 50	4 00
Kentucky Blue Grass. (Extra Cleaned)	15		1 50
Kentucky Blue Grass (Fancy)	20		1 75
Red Top Grass (Choice)	10		1 00
Red Top (Fancy) No Chaff (40 lbs. to the bushel)	15		5 00
English Rye Grass	10		2 00
Rescue Grass	35		4 00
Johnson Grass. (Extra Cleaned)	15		2 50
Tall Meadow Oat Grass	30		3 00
Meadow Fescue Grass	25		3 00
Orchard Grass	20		2 00
Timothy	10		2 50
Hungarian Grass			
German Millet			
Rye, Texas		Market Price.	
Barley			
Texas Red Rust Proof Oats			
Sorghum			
Broom Corn	10		2 50
Dhouro or Egyptian Corn	10		
Buckwheat	10		2 00
Russian Sunflower	20		
Winter Vetch, (Vicia Sativa)	10	Per lb.	5 00
Teosinte	50c. ¼ lb.	1 50	

Burr or California Clover .....(measured) per quart, 10c.; per bushel, $2.50.

N. B.—Prices for larger quantities given on application.

Read and see what people say about Frotscher's Seeds for the South.

I have only published a few of the many testimonials received the past year, owing to the limited space in my Manual.

MISSISSIPPI, March 17th, 1893.

The people over here are delighted with your Seeds. The Crescent City Flat Dutch Cabbage did splendidly, all making fine and large heads.
GEO. K. VIERLING.

LOUISIANA, September 12th, 1893.

I consider it time and money lost using any other Seeds but Frotscher's.
B. HUDSON.

MISSISSIPPI, March 5th, 1893.

Have grown Water Melons for a number of years from Seeds which I purchased from you and they have always given good results.
ROBT. FIELD, M. D.

LOUISIANA, February 7th, 1893.

Your Seeds have turned out to be the best we have ever handled.
ADOLPH MEYER.

MISSISSIPPI, January 11th, 1893.

Mr.——— of Pike Co., Miss., a dealer in Garden Seeds, stated, that he sells the Commission Seeds of——— in large quantities, but when he wants any for his own use he gets them at Frotscher's.

LOUISIANA, March 11th, 1893.

Allow me to compliment you on your Crescent City Flat Dutch Cabbage, which turned out fine. S. M. COWEN.

LOUISIANA, April 15th, 1893.

The Seeds bought of you this Spring were all good. I. N. SATTERFIELD.

MISSISSIPPI, March 29th, 1893.

Your Seeds are doing fine. The Rural New Yorker No. 2 Potatoes have done better than any other I have grown since I have been farming. FRANK E. DIETZEL.

MISSISSIPPI, April 7th, 1893.

We have always found your Seeds satisfactory and prefer dealing with you than buying from others. MRS. E. J. VAN COURT.

TEXAS, March 10th, 1893.

Your Seeds always give entire satisfaction.
C. L. CROSSMAN.

LOUISIANA, July 19th, 1893.

I have been buying my Seeds from you for the past 12 years and have always found them to be good and genuine. HENRY KOHN.

MISSOURI, July 19th, 1893.

Please send me one of your "Garden Manual's", which has been highly recommended to me as being very instructive on gardening in the South.
WILLIAM BULTZING.

LOUISIANA, June 18th, 1893.

The Seeds I buy from you always give perfect satisfaction in every respect.
W. W. MATTHEWS, M. D.

LOUISIANA, July 11th, 1893.

The Egg Plants sent us are turning out splendidly.
MRS. M. E. FAUNTLEROY.

LOUISIANA, July 15th, 1893.

The Melon Seeds I got from you are doing well. I suppose I have the finest 2 acre patch of Melons in the Parish.
ARMAND WARTELLE.

LOUISIANA, August 2nd,, 1893.

The Seed I got from you in the Spring did finely. MRS. G. H. CARPENTER.

LOUISIANA, August 4th, 1893.

Last year I raised the finest Cauliflower that I ever saw; grown from the Italian Giant variety bought from you.
M. J. ROSTEET.

LOUISIANA, August 2nd, 1893.

Your Seeds are always the best and give entire satisfaction. MRS. L. J. MILLER.

HINDS Co., MISS., January 15th, 1893.

Your Seed is perfect in the way of germinating and true to name. I never had any before that did as well as yours.
E. H. BROOME.

LOUISIANA, April 1st, 1893.

Please accept thanks for the fine Peas (American Wonder) you sent me, they are growing beautifully. MISS L. Lotspeich.

TEXAS, September 28th, 1893.

Your Seeds have given general satisfaction. The Crescent City Flat Dutch and Stein's Flat Dutch Cabbage germinated within 48 hours after planting. The Little Gem Sprinkler works nicely and does all that is intended for it.

R. B. CRISP.

MISSISSIPPI, February 7th, 1893.

I have bought all my Seeds from you for the past two years and have always been much pleased with the results. JNO. A. DICKS.

TEXAS, May 6th, 1893.

I have been getting my Creole Onion Seeds from you for the past three years and they have always given utmost satisfaction.

WARREN HILL.

TEXAS, February 25th, 1893.

Herewith I send you a list of Seeds for Spring gardening. I cannot get along without "Frotscher's Seeds."

MRS. B. F. CAMERON.

LOUISIANA, August 10th, 1893.

The Fruit Trees which I got from you last year were satisfactory. I did not loose one and the Grape Vines made a remarkable growth. The Orange Trees blossomed and set fruit, but they fell off, owing I suppose to their being transplanted.

MRS. J. W. HILLMAN.

TEXAS, August 7th, 1893.

All the Seeds I bought of you gave better satisfaction than those which I had from other Seedsmen. The New Orleans Passion Lettuce all made solid heads. E. M. POENISCH.

TEXAS, November 22nd, 1893.

The Snap Beans I got from you made the largest crop I ever saw.

JAMES PATTINSON.

LOUISIANA, December 13th, 1893.

All the Seeds which we got from you have proved satisfactory.

JOHN W. SALLES.

MISSISSIPPI, September 13th, 1893.

I am very much pleased with your House and will do all I can for you in this neighborhood. MARTHA R. BLANTON.

TEXAS, August 14th, 1893.

Your Seeds are always good. A. PARR.

LOUISIANA, July 30th, 1893.

Your Carter's Telephone Pea is the best and most prolfic bearer I ever saw.

R. C. GIBSON.

TEXAS, August 25th, 1893.

I have tried Seed from all parts of the United States and I consider yours the best; especially your Creole Onion Seed which is of quick growth and of good keeping quality.

G. A. HUDSON.

LOUISIANA, August 4th, 1893.

I have tried your Seeds last year and they have given me the greatest satisfaction. The New Orleans Market Melon and your Water Melons are the best ever seen in this locality.

BART. FABER.

FLORIDA, September 3rd, 1893.

A friend of mine praised your Seeds so highly that I thought I would give them a trial.

MRS. C. A. PETERSON.

LOUISIANA, August 26th, 1893.

The Garden Seeds I bought from you gave me the best satisfaction. M. GILMORE.

FLORIDA, September 12th, 1893.

A friend informs me that he has had excellent success in raising the Louisiana or Creole Onion in Florida, from Seed furnished by you.

J. S. LITTLE.

FLORIDA, November 11th, 1893.

The Long Island Grown Ruta Baga Seed which I got from you made the finest Turnips that have ever been grown here in this section. Last Spring I had the finest Cabbage patch, grown from your Seed.

EVERETT GREEN.

LOUISIANA, March 10th, 1893.

The Turnip Seed I got from you last Autumn was the best I ever used, Early Red or purple Top Variety. They grew very rapidly and weighed from 5 to 6 pounds each.

A. J. BUTLER.

TEXAS, February 8th, 1893.

I have heard your Seeds so highly recommended that I have concluded to give them a trial. FIDELIA GERNAUDT.

LOUISIANA, March 6th, 1893.

Your Seeds are the best we ever got.

FRED MERRITT.

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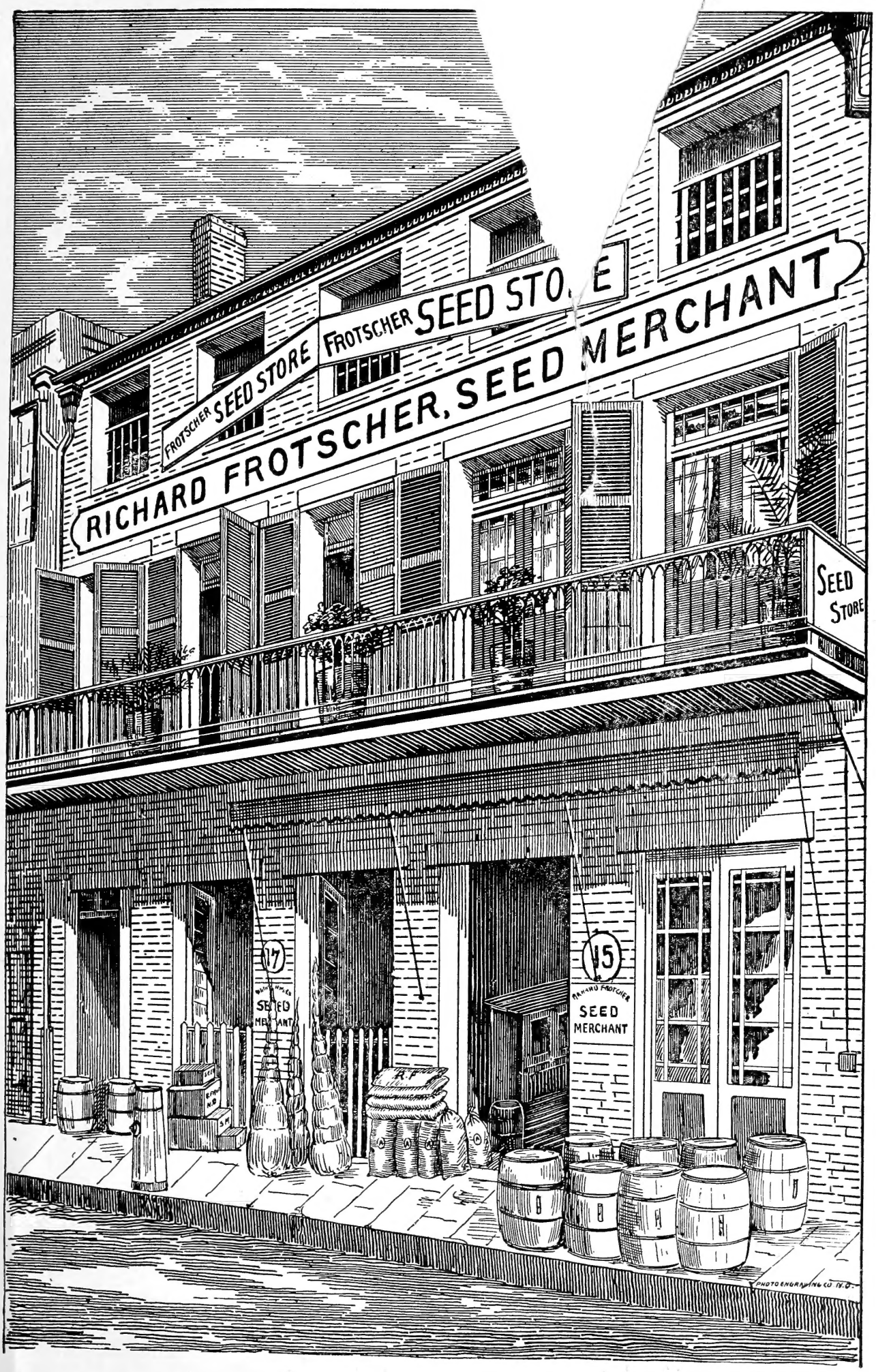
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